

# **AMPLIFIERS**



#### **AB SYSTEMS**

#### The Nine Twelve Mixer Preamplifier

Features two-channel mike mixing on program or tape outputs; two-way tape dubbing with tape 1 and



#### ACCUPHASE

#### C-200 Stereo Preamplifier

#### **ACE AUDIO**

#### 3000 Stereo Preamplifier

2 V rated output into 10,000-ohm load, 8 V (max.); gain 20 dB (high-level inputs), 60 dB (phono input); phono overload 90 mV; frequency response  $20-20,000 \text{ Hz } \pm 0.1 \text{ dB}, -1 \text{ dB at 1 and 75,000}$ Hz; harmonic and IM dist. 0.02% max.; hum and noise 90 dB below 0.8 V input (high level), 73 dB below 8 mV input (phono); RIAA phono equalization ±0.5 dB; input impedance 33,000 ohms (high level), 47,000 ohms (phono); output impedance 470 ohms; outputs: main, tapes 1 and 2; inputs: phono, tuner, aux., and tapes 1 and 2; volume and balance controls; three ac outlets (1000 W max.), one switched, two unswitched; 120- or 240-V ac, 5 W;  $2^3/4'' \text{ H} \times 14^1/2'' \text{ W} \times 7'' \text{ D} \dots $250$ Kit......\$156 3100. Similar to 3000 but uses external power supply......\$325

#### **Basic Stereo Preampilfier**

High-level inputs (FM, aux. 1 and 2): sensitivity 0.1

V for 1 V output; input impedance 41,000 ohms at full volume, 50,000 ohms at -20 dB setting; output impedance 100 ohms; harmonic and IM dist. 0.05% at 2 V output; frequency response 20-20,000 Hz ±0.1 dB; hum and noise 85 dB below 0.5 V input; output 10 V into 15,000 ohms. Phono input: sensitivity 2.2 mV for 1 V output; innut impedance 47,000 ohms; harmonic dist. 0.05% (midband); RIAA equalization ±0.5 dB; hum and noise 70 dB below 10 mV input; overload 250 mV. Inputs: RIAA phono, FM, aux. 1 and 2, and tape monitor; outputs: main, tape; four ac outlets (three switched). 117-V ac (220-V models available, \$5 additional), 5 W ......\$168 BSPW High. Similar to BSP but +6 dB gain on all inputs ...... \$175

#### **ADC**

#### **B-100 Stereo Preamplifier**

Tube preamplifier with built-in moving-coil head amp; input sensitivity 0.5 mV (phono), 0.05 V (high level); phono input capacitance 50-430 pF; phono input impedance 25-100 ohms; phono overload 375 mV; frequency response 5-200,000 Hz ±0.1 dB; THD and IM dist. 0.09%; S/N 70 dB (phono)...

#### AGI

\$1195

#### 511A Stereo Preamplifier

Features bi-amplified phono stage; dual feedback system with electrolytic coupler and separate ac



feedback loop; no filters or tone controls; frontpanel input select buttons, one-way tape dubbing with two-deck monitor switches, mono switch, and tone send selector (controls external processor loop for equalizers and other signal processors). Gain 33.0 dB ±0.25 dB at 1000 Hz (phono), 18.9 dB  $\pm 0.25$  dB (high level), 40.1 dB  $\pm 0.25$  dB at 1000 Hz (Option H high gain phono); input impedance 47k ohms (phono), 38k ohms (high level); phono overload at 1000 Hz 160 mV (phono), 70 mV (Option H high gain phono); max. output (into 10,000 ohms) 7 V (phono), 9.5 V (high level); output impedance 220 ohms at rec out (phono), 47 ohms (high level); hum and noise below 10 mV at 1000 Hz -88 dB (phono, A weighted), -80 dB (phono, unweighted), -106 dB below full output from 20-20,000 Hz (high level, unweighted); frequency response ±0.25 dB (RIAA phono), 20-20,000 Hz  $\pm 0.1$  dB (high level); slew rate 250 V/ $\mu$ sec (phono), 50 V/usec (high level); rise time at 2 V

peak-to-peak 0.01  $\mu$ sec max. (phono), 0.25  $\mu$ sec max. (high-level); THD and IM dist. 0.005%; Option G (gold-finish panel and knobs) and Option H (high-gain phono stage) are available at no extra cost but must be requested at time of purchase of 511A; 51/4" H  $\times$  14" W  $\times$  10" D .......\$495 Option F. High or low 12 dB/octave Butterworth filter at -3 dB user-specified frequency .....\$50 Oak hardwood cabinet for 511A ......\$70 Walnut hardwood cabinet for 511A ......\$75

#### **AIWA**

#### SA-C22U Mini Stereo Preampilfier

Features differential circuit with dual positive and negative power supplies; defeatable bass and treble



#### **APT**

#### Holman Preamplifier

Features dc phono preamp with FET/bipolar differential pair-input configuration; optional plug-in prepreamp for moving-coil cartridges; three-tape deck input selector switch with two tape monitor loops and dubbing switches; 32-step attenuator volume control; variable mode control and balance control; tone defeat switch; high filter switchable between 40,000 and 8000 Hz (12 dB/octave rolloff); treble and bass controls; headphone amplifier output;



front-panel mute control. THD at rated output 0.01%, IM dist. 0.01% (SMPTE), TIM dist. 0.006%; frequency response 20-20,000 Hz  $\pm$ 0.5 dB; input sensitivity/impedance 5 mV rms/47,000, 100,000 ohms (phono 1 and 2), 320 mV rms/50,000 ohms (high level); 2.0 V rms output level; phono overload 150 mV rms at 1000 Hz, line input overload 10 V rms at 1000 Hz; gain 36.5 dB (phono to tape), 18 dB (high level to main); S/N ("A" weighted) 80 dB below input reference level of 10 mV rms at 1000 Hz (phono 1 and 2), 106 dB V (line). 3.12" H  $\times$  15.04" W  $\times$  8.19" D ........ \$502



#### **AUDIO RESEARCH**

SP-6A Stereo Preamplifier

Features segmented 2-dB gain control; front-panel mute switch; rear-panel gain range switch (-10 dB); separate on/off switch; indicator for three amp power receptacles. Max. input 700 mV at 1000 Hz (magnetic phono); input impedance 50,000 ohms (all inputs); output impedance 500 ohms at 1000 Hz (all outputs); rated output (IHF) 5 V rms from 20-30,000 Hz (all outputs), 60 V rms at 1000 Hz into 100,000-ohm load at 1.0% THD (main out); S/ N 90 dB below 1 V rms input; frequency response 10-30,000 Hz  $\pm 0.25$  dB (high level), RIAA phono deviation ±0.25 dB from 30-15,000 Hz; HD less than 0.03% at 5 V rms out (IHF); IM dist. less than 0.008% at 5 V rms out (IHF SMPTE); gain 34 dB (magnetic phono in to tape out), 60 dB (magnetic phono in to main out), O dB (high level in to tape out), 26 dB (high level in to main out).  $5^{1}/4^{\prime\prime}$  H  $\times$  19" W × 101/4" D ...... \$1195 WC-4. Walnut-finished wood cabinet for SP-6A. ....

**SP-4A Stereo Preamplifier** 

.....\$100

SP-5 Stereo Preamplifier

Frequency response 1-100,000 Hz +0/-3 dB; 2 V rated output (10 V overload); 0.005% THD and IM dist. at rated output; S/N 80 dB (phono, 10 mV input); sensitivity 0.1 V (high level), 2 mV (phono); phono overload 300 mV; tape impedance/output 2000 ohms/0.5 V;  $3^1/2^m$  H  $\times$  19" W  $\times$   $8^1/2^m$  D. \$895 WC-2. Walnut finished wood cabinet for SP-5 ... \$90

#### **AUDIO SCIENTIFIC by SUPEREX**

**Two-Section Stereo Preamplifier** 

#### **AUDIRE**

Diffet 1A Preamplifier

Features three switch positions for moving-coil cartridge: standard (47,000 ohms and 0 dB), medium-

#### ABOUT PRICES. . . .

With repeal of Fair Trade Laws, manufacturers are now providing "Suggested Retail" or "Fair Retail Value" figures for the guidance of their dealers and customers. Prices in this Directory are those provided by the manufacturers under these conditions.

gain (40 ohms and +6 dB), and low-gain (500 or 47,000 ohms and +12 dB). Magnetic phono: RIAA  $\pm 0.25$  dB from 20-20,000 Hz; phono overload 175 mV at 1000 Hz; HD 0.005% at 20 Hz and 0.008% at 20,000 Hz; output 15 V rms; gain 38.5 dB at 1000 Hz; S/N 93 dB. High level: frequency response 0-100,000 Hz +0/-0.25 dB; THD 0.005% at 3 V rms out; IM dist 0.001%; S/N 90 dB at 3 V rms out; gain 23 dB. Inputs: magnetic phono, tuner, aux., tape 1/2; outputs: two tape and two main; two switched and two unswitched ac outlets; volume, balance, short-wave selector, and short-wave power controls.  $4^3/4^{\prime\prime}$  H  $\times$  19" W  $\times$  7" D.

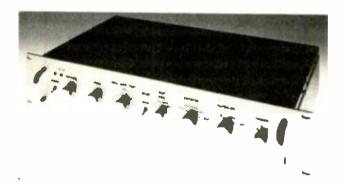
Legato Preamplifier

Features 18 dB/octave subsonic filter; two-way tape dubbing with copy/source record and tape/source monitor switches; input selector with separate phono 1/phono 2 selector. Frequency response  $\pm 0.25$  dB from 20-20,000 Hz (phono RIAA), 0-100,000 Hz  $\pm 0.025$  dB (high level); HD 0.005% at 3 V rms; S/N 90 dB; phono overload 150 mV at 1000 Hz; gain 38.5 dB (phono), 19.5 dB (high level); 1.75" H  $\times$  19" W  $\times$  7" D .......\$330

#### BERNING by PRECEDENT

**TF-10 Stereo Preamplifier** 

Features hybrid vacuum tube and transistor amplification circuitry; passive network phono equalization; power supply energy storage; direct coupling



and servo systems; tape output buffers; electronic mute control for remote-control muting; high-level, gain level, and balance controls; two-way tape dubbing with monitor select switch for all inputs; input selector with separate three-phono input switch. Frequency response  $\pm 0.25$  dB from 20-20,000 Hz (phono RIAA, passive), 10-100,000 Hz  $\pm 0.000$  Hz (phono RIAA, passive), 10-100,000 Hz  $\pm 0.000$  Hz (high level); noise  $\pm 0.000$  Hz  $\pm 0$ 

#### **BGW**

**Model 203 Stereo Control Center** 

Gain 42 dB (phono to tape out, 1 kHz), 22 dB and 10 dB (high level to line out) with high-low gain switch set to high and low, respectively; frequency response 20-20,000 Hz  $\pm 0.2$  dB (high level), ±0.25 dB of RIAA (phono); input impedance 47,000 ohms (phono), 90,000 ohms (high level); input overload 100 mV (phono, 1000 Hz), 10 V (high level); max. output 8 V rms into 600 ohms (line), 10 V rms into 5000 ohms (phono at tape out), 4 V rms into 5000 ohms (rated output); THD 0.01%; subsonic and scratch filters; front-panel tape copy and headphone jacks; provisions for remote MC preamp and ac power switching; active bass and treble tone circuitry; equalizer in/out jacks; 51/4" H × 19" W × 11 1/4" D ...... \$719 Cabinet......\$41

Model:103 Stereo Preamplifier

Gain 40 dB at 1000 Hz (phono to tape out), 24 dB (high level to line out); input impedance 47,000 ohms (phono), 90,000 ohms (high level); input overload 120 mV at 1000 Hz (phono), 4.5 V (high

level); 100-dB dynamic range (phono); max. output voltage 8 V rms into 600 ohms (line out), 10 V rms into 5000 ohms (phono at tape out); THD less than 0.01% at rated output; noise -90 dB below rated output (high level to line out); frequency response 20-20,000 Hz ±0.25 dB (high level and phono RIAA). Features all-discrete circuitry; three-pole (18 dB/octave) subsonic filter; separate bass and treble tone controls equalized at  $\pm 15$  dB at 50 and 15,000 Hz; front-panel defeat switch for removal of tone controls; four high-level inputs (tuner, aux., tape 1 and 2, equalizer phono); one switched and two unswitched ac outlets; full facilities for interfacing with two tape machines; 31/2" H x 19" W x 10<sup>1</sup>/<sub>2</sub>" D .......\$439 Cabinet......\$41

#### **BOZAK**

919 Mixer/Preamplifier

909 Preamplifier

Features plug-in circuits; all-silicon circuitry; active filters; flat or equalized switchable tape outputs; inputs: phono 1 and 2, tuner, aux., tape monitor 1 and 2; controls: bass and treble for each channel, balance, volume, lo/hi filters, EQ defeat, stereo/mono, tape dubbing; frequency response 20-20,000 Hz ±0.25 dB; dist. 0.1% IM and harmonic; S/N (unweighted) 80 dB (phono), 90 dB (high level); 12 V output into 600 ohms.......\$490

#### **CARVER**

C-4000 Stereo Preamplifier

Features sonic audio hologram generator designed to recreate vector sound field present during original



recording and to locate musical instruments precisely in space; built-in three-channel time delay system with 25-W amp and user-selectable 60/80 msec initial delay and five primary delays; thirdgeneration audio-correlator noise-reduction system and peak unlimiter; separate left and right bass and treble controls with turnover frequency switches and tone defeat; cartridge matching; two-way tape dubbing and monitoring; external signal processor input; infrasonic filter. Frequency response ±0.25 dB from 20-20,000 Hz (phono RIAA), 5-200,000 Hz -1 dB (high level); input sensitivity 0.85 mV (phono), 50 mV (high level); phono overload 150. mV at 1000 Hz; phono gain 35 dB. Noise reduction 20 dB from 2500-20,000 Hz, 10 dB from 200-20,000 Hz. Sonic hologram image resolution 5° arc in horizontal plane, 20° arc in vertical plane. Peak unlimiter total dynamic range recovery 6 dB. Time delay: delay time 85 msec max.; dist. 0.2%: bandwidth 20-10,000 Hz, feed forward to 19,000 Hz. 61/4" H × 19" W × 8" D ...... \$867

#### **CONRAD-JOHNSON**

#### Vacuum Tube Stereo Preamplifier

#### CROWN

#### **DL-2 Control Center/Preamplifier**

Three-piece stereo control preamp consisting of switching module with all controls, power supply, and phono module A (phono preamp stage for placement at turntable). Switching Module: features digital control-setting displays, digital interface for wireless remote control system, and eight dualchannel touch-button selectable inputs, including two for external signal processors and one mixable input. Specifications: frequency response into 10,000 ohms from 10-50,000 Hz  $\pm 0.1$  dB and  $1-100,000 \text{ Hz } \pm 0.5 \text{ dB}$ ; 2.5 V rated output, 11 V rms max. before overload; phase response into 10,000 ohms from 20-20,000 Hz ±8 dB; hum and noise below rated output 97 max. (unweighted), 101 max. (A weighted); IM dist. 0.0003% max. below 10-V output; THD with 10,000-ohm load at rated output 0.0003% max. at 1000 Hz, 0.0008% max. from 20-20,000 Hz; input gain/impedance 20 dB ±0.2 dB/100k ohms; output impedance 50 ohms: three-circuit, 1/4-in headphone jack with 1-ohm min. impedance, 17 V rms max. output, and frequency response from 10-50,000 Hz ±0.1 dB at rated output; 63.5 dB dynamic range gain on sevensegment LED displays; frequency adjust controls set at 20, 40, 80, 400, 800, 1600, 5000, 10,-000, and 20,000 Hz; 18 dB/octave roll-off; 31-position switched attenuators for ±0.2 dB adjustment over 50-dB range; 71/2" H × 17" W × 14" D. Power Supply: Seven switched and two unswitched ac outlets; three dc outlets: 31/2" H × 17" W x 71/2" D. Phono Module A: frequency response into 10,000 ohms 20-20,000 Hz ±0.25 dB (RIAA), 10-30,000 Hz ±0.1 dB (flat); phase response into 10,000 ohms 20-20,000 Hz ±5 degrees (RIAA), 20-20,000 Hz -12 degrees (flat); hum and noise -88 dB (RIAA unweighted), -94 dB (RIAA "A"), -84 dB (flat unweighted), -89 dB (flat "A"); IM dist. 0.0005% min. into 10,000 ohms, SMPTE at rated output; THD 0.002% min. into 10,000 ohms from 20-20,000 Hz at rated output; input gain from 30-50 dB, 2.5 V at 1000 Hz; input impedance 47,000 or 100,000 ohms; output impedance 600 ohms with max. 11 V rms; 31/2" H × 13/6" W × 65/6" D. Switching Module and Power Supply have satinized aluminum front panel with charcoal Lexan inlay, other surfaces black anodized; Phono Module A has black anodized steel finish. \$2395

#### Straight Line One Preamplifler

#### **DB SYSTEMS**

**DB-1A Preampilfier** 

THD less than 0.0008% from 20-20,000 Hz; IM dist. less than 0.001%; frequency response:

(phono) 10-40,000 Hz ±0.07 dB; (high level) 2-50,000 Hz +0, -1 dB; S/N (IHF A weighted) 89 dB (phono), 90 dB (line); filters: (low cut) flat, 20 Hz, 36 Hz at 6 dB/octave (phono only), (high cut) flat, 5000 Hz, 10,000 Hz at 6 dB/octave; output impedance 1000 ohms; max. output voltage 6 V into 10,000 ohms; max. load for rated dist. 10,000 ohms/3000 pF; input sensitivity for 1 V output: phono 2 mV into 50,000 ohms/100 pF, high level 120 mV into 50,000 ohms; controls: selector, balance, volume, low cut, high cut, tape monitor (includes "mute" position); requires separate regulated power supply (included); 8.5" × 3.2" × 7".....

DB-1Au. Same as DB-1A except with gold jacks......

DBR-1A. Same as DB-1A except mounted in standard rack; requires DB-2 power supply .......\$364
DB-2. Power supply; wired for 120 V or 240 V operation; supplies up to 300 mA at 33 V (includes protective current limiter) .....\$62

#### DENON

#### **PRA-1003 Control Amplifier**

Silicon transistor stereo control amplifier. Equalizer: input sensitivity/impedance 2.5 mV/50,000 ohms (phono 1), 2.5 mV/30k, 50k, and 100,000 ohms (phono 2); 320 mV max. input; THD 0.003% at 3 and 20 V from 20-20,000 Hz; RIAA deviation ±0.2 dB from 20-20,000 Hz; S/N 86 dB (IHF "A"); separation 100 dB min. from 20-1000 Hz, 90 dB min. at 20,000 Hz; 35.6-dB gain. Control: input sensitivity/impedance 150 mV/50k ohms (tuner, aux., and phonos); 10-V max output; THD 0.003% at 3 V from 20-20,000 Hz, 0.007% at 10 V from 20-20,000 Hz; frequency response 10-100,000 Hz +0/-1 dB; S/N 100 dB min. (IHF "A"): stereo separation 100 dB min. at 20 and 1000 Hz, 85 dB min. at 20,000 Hz; gain control at 0, -10, and -20 dB; bass control 50 Hz +10 dB, treble 20,000 Hz +10 dB; 18 dB/octave low filter rolloff, 6 dB/octave high filter rolloff. Features independent REC FUNCTION knob to hook up with phono 1 or tuner, FETs and ICL input circuit with no coupling condenser, separate left/right equalizer amps, pure-complementary pushpull circuitry, and headphone amplifier; 170 mm H × 410 mm W × 270 mm D ..... \$550

#### **EUMIG**

#### C-1000 Stereo Preamplifier

#### **DAVID HAFLER**

#### **DH-101 Streeo Preamplifier**

Rated output 3 V; max. output 7 V; dist. 0.0006% (phono, 1 kHz, 3 V output), 0.001% (high level); slew rate 12 V/ $\mu$ sec; phono overload 200 mV (1 kHz); hum and noise (A weighted) -88 dB (phono, 1 kHz, 10 mV input), -90 dB (high level, 1 V); frequency response 2-20,000 Hz  $\pm 0.5$  dB (phono), 20-20,000 Hz  $\pm 0/-0.25$  dB (high level); gain 34 dB (phono, 1 kHz), 20 dB  $\pm 1$  dB (high level); input impedance 25,000 ohms (high level); bass and treble controls; provision for patching in external equipment; three switched ac convenience outlets; 3.25% H  $\times$  13.75% W  $\times$  8.38% D

Kit....\$200 Assembled \$300





#### HARMAN/KARDON

#### Citation 17 Preamplifier

Incorporates equalizer section; high-frequency and subsonic filters; two tape monitor loops controlled by front-panel switches; two phono, three high-level aux., and tuner inputs; switching for two sets of speakers and two headphone jacks; stepped attenuation. Max. output 14 V rms into 2200 ohms; 0.002% THD and 0.0025% IM dist. at 2 V rms output; S/N 92 dB (2 V rms, high-frequency filter in); input sensitivity 2.8 mV for 2 V rms output; phono preamp: S/N 80 dB (10 mV input, 1 kHz); input sensitivity 2.8 mV for 2 V at tape output (1 kHz); overload 180 mV (1 kHz);  $4^{3}/_{4}$ " H  $\times$  16" W  $\times$ 12" D .......\$499 Citation 17s. Similar to Citation 17 but without **CW-17.** Walnut enclosure for 17 and 17s ......\$40 **P-11/17.** Rack panel for 17 and 17s......\$30 Citation RPM. Rack panel mount for 17 and 17s .... .....\$188 Citation CRM. Floor-standing rack mount for 17 and 17s.....\$285

#### **HEATH**

#### **AP-1800 Stereo Preamplifier**

Features built-in moving-coil cartridge head amplifier; switchable phono capacitance/input sensitivity selector; attenuator volume control; tone controls with two filters. Output 1.5 V; THD and IM dist. 0.02%; switches up to 1500 W using ac;  $5^1/4^m$  H  $\times$  19" W  $\times$  11'/4" D. • Kit...........\$380

**AP-1615 Stereo Preamplifier** 

#### **HITACHI**

#### **HCA-8300** Preamplifier

Features bass and treble controls with tone defeat and bass and treble turnover frequency controls; low and high filters; two-way tape monitoring and dubbing; input selector with separate phono level adjustment; headphone level control; -5, -10, -20 dB gain selectors; loudness switch; mode control. Input sensitivity/impedance 2-6 mV/50k ohms (phono 1), 2 mV/50k ohms (phono 2), 100 mV/50k ohms (tuner, aux., tape); output level/impedance 1 V/600 ohms (pre out), 100 mV/600 ohms (tape out, PIN), 40 mV/80,000 ohms (tape out, DIN), 50 mV/ ohms (headphones); frequency response 5-100,000 Hz  $\pm 1.5$  dB (tuner, aux.), RIAA  $\pm 0.2$ dB (phono); THD 0.01% (phono, 20 V at rec out; tuner, aux., 7 V at pre out); S/N 75 dB at 2 mV input (phono), 100 dB at 100 mV input (tuner, aux.), 100 dB at 100 mV input (tape); 6" H  $\times$  171/ $_{a}$ ' W × 12'/a" D ......\$350

#### **HCA-7500 Preamplifier**

Complementary push-pull, three-stage dc equalizer amplifier circuitry and three-stage dc push-pull FET differential tone control amplifier circuitry. Features bass and treble controls with turnover frequency selectors and tone defeat; low and high filter switches; two-way tape dubbing and monitoring; -20-dB muting; mode switch; input selector with two cartridge load controls. Specifications: input sensitivity/impedance 2 mV-6 mV/50k ohms (phono 1), 2 mV/50k ohms (phono 2), 100 mV/50k ohms (tuner, aux., tape 1 and 2); max. input level 350 mV at

1000 Hz (phono 1 and 2); output level/impedance 1 V/600 ohms (preamp out), 100 mV/600 ohms (tape out, PIN and DIN); max. output level more



than 7 V (preamp out); frequency response 20-20,000 Hz  $\pm 0.2$  dB (phono 1 and 2), 5-100,000 Hz  $\pm 0/-1$  dB (tuner, aux., tape 1 and 2); THD 0.005% at 1 V, tape out (phono 1 and 2, tuner, and aux.); S/N (IHF "A") 87 dB (phono 1 and 2), 100 dB (tuner, aux., tape 1 and 2); residual hum and noise (preamp out) 8 mV;  $6^{1}/2^{m}$  H  $\times$   $18^{7}/6^{m}$  W  $\times$   $13^{3}/4^{m}$  D ......................\$350

**HCA-6500 Preamplifier** 

#### JVC

#### JP-S7 S.E.A. Preamplifier

Input sensitivity/impedance 2 mV/33,000, 47,-000, or 100,000 ohms selectable (phono), 200



#### **EQ-7070 Phono Equalizer Preamp**

Features built-in moving-coil head amplifier, highgain equalizer amp with dc circuitry, and dual-FET push-pull dc amplifier; input selector with separate phono selector and cartridge load capacitance/resistance selectors; two-deck tape/source monitor switch; detented volume/balance control: LED standby and operation indicators. Input sensitivity/ impedance 0.1 mV/11 ohms (phono 1 MC), 0.025 mV/2.5 ohms (phono 2 MC), 1.8 mV/100, 33k, 50k, 100k ohms (phono 1, 2, 3 MM), 160 mV/50k ohms (aux., tuner, and tape); phono overload 15 mV (MC 1), 3.8 mV (MC 2), 300 mV (MM 1, 2, 3) at 1000 Hz; frequency response 30-15,000 Hz  $\pm 0.2$ dB (phono); S/N (IHF A) 73 dB (MC 1), 82 dB (MC 2), 85 dB (MM 1, 2, 3); THD 0.003% (MC 1), 0.005% (MC 2), 0.002% (MM 1, 2, 3);  $2^{7/14}$  H  $\times$ 16<sup>9</sup>/<sub>16</sub>" W × 14<sup>7</sup>/<sub>6</sub>" D ......\$950

#### P-3030 Control Preamplifier

Input sensitivity/impedance 2 mV/100, 33,000, 47,000, and 100,000 ohms selectable (phono),

#### **KENWOOD**

#### **Audio Purist Group**

#### L-07CII Control Preamplifier

Features low-level impedance circuitry, two independent phono equalizer amplifiers for moving-coil



and moving-magnet cartridges, and cascode differential buffer amplifier circuitry; bass and treble tone controls; 18-Hz subsonic filter; output switch; two-way tape dubbing; input selector. Frequency response ±0.2 dB from 20-20,000 Hz (RIAA phono 1) and from 30-20,000 Hz (RIAA phono 2), 1-350,000 Hz + 0/-3 dB (tuner, aux., and tapeplay); THD 0.004% from 20-20,000 Hz at 1 V out (tuner, aux., tape), and at 3 V out (phono 1), 0.008% from 20-20,000 Hz at 1 V out (phono 2); input sensitivity/impedance 2.5 mV/50k ohms (phono 1), 0.2 mV/600 ohms (phono 2), 140 mV/ 25k ohms (tuner, aux., tape); S/N 90 dB (phono 1), 70 dB (phono 2), 108 dB (tuner, aux., tape); max. input 450 mV rms (phono 1), 40 mV rms (phono 2); includes low-impedance cable and remote power switch for connection to L-09M, L-07MII, and L-05M power amplifiers;  $3^{15}/_{16}$ " H ×  $18^{29}/_{32}$ " W × 13³/a" D ......\$900

#### LUX

#### C-12 Preamplifier

Direct-coupled stereo preamplifier. Features DML-IC for dc drift suppression; volume control; linear equalizer; subsonic filter; input impedance adjuster; tape monitor, tape dubbing, and record off switch; audio attenuator with preset position; extra ac outlet (two switched and one unswitched). Output/impedance 1 V/100 ohms (pre out), 150 mV/ 100 ohms (rec. out); THD 0.005% (phono, rec. out, tuner, aux., monitor, pre out); IM dist. 0.002% (phono, rec. out, tuner, aux., monitor, pre. out); frequency response 20-20,000 Hz ±0.2 dB (phono 1 and 2), 1-200,000 Hz -0.5 dB (tuner, aux. 1 and 2, monitor 1 and 2); input sensitivity/impedance 2.3 mV/50,000 ohms (phono 1 and 2), 150 mV/50,000-60,000 ohms (tuner, aux. 1 and 2, monitor 1 and 2); S/N (IHF "A") better than 96 dB (phono 1, 2), better than 100 dB (tuner, aux. 1 and 2, monitor 1 and 2); phono overload 300 mV min. 

#### **Laboratory Reference Series**

#### **Luxman 5C50 Stereo Control Preamp**

Features linear equalizer, switch-selected subsonic notch filter circuitry, selectable sharp high frequency filters, tape dubbing and monitoring, muting switch. Output 1 V (pre out), 150 mV (rec. out), 18 V (max.); THD 0.005%; IM dist. 0.002%; frequency response RIAA ±0.2 dB (phono), 0.5-200,000 Hz +0/-0.5 dB (tuner, aux.); S/N

80 dB below 2.5 mV (phono, IHF A), 100 dB (tuner and aux., IHF A); input sensitivity for 1 V pre. out 2.5 mV (phono), 150 mV (tuner, aux.); input impedance 30,000, 50,000, 100,000 ohms (phono), 50,000 ohms (tuner, aux.); output impedance 500 ohms; crosstalk -80 dB (phono), -95 dB (tuner, aux.); phono overload 300 mV rms (1 kHz); residual noise 0.33 mV (phono), 5 μV (tuner, aux.); 4" H × 17.7" W × 16" D ...... \$895

#### MARANTZ

#### 3250B Preamp/Control Console

Includes moving-coil head amplifier. THD and IM dist. 0.01% at 3-V output from 20-20,000 Hz. Features selectable tone turnovers; bass, midrange, and treble slide tone controls; independent tape-totape copy; two-recorder tape monitoring circuitry; low (18 dB/octave at 15 Hz) and high (18 dB/octave at 9000 Hz) filters.  $5^{3}/_{4}$ " H ×  $16^{3}/_{6}$ " W ×  $9^{3}/_{4}$ " D. \$350

#### **MERIDIAN by ANGLO-AMERICAN**

#### 101 Stereo Preamplifler

Features choice of moving-coil or standard pickup cartridge input; one-way tape dubbing with tape/ source monitor switch; mono switch; optional input modules to optimize leading cartridges available. Input sensitivity 1.4 mV (phono), 450 mV (high level); phono overload 160 mV; frequency response 20-20,000 Hz ±0.5 dB (phono RIAA), 5-50,000 Hz  $\pm 0.5$  dB (high level); THD and IM dist. 0.01%; chocolate brown textured enamel finish with goldblocked lettering; 2" H × 5.5" W × 12.5" D... \$465

#### **METRON**

#### **PR-1 Preamplifier**

Features multiple-gang stepped attenuator volume control adjustable in 2-dB increments; separate stepped bass and treble controls ± 10 dB; detented balance control; input selector switch with LED; tape monitor switch; tape dubbing switch; -20 dB muting switch; subsonic filter (-9 dB/octave at 10 Hz); headphone jack. Input sensitivity (IHF) 0.5 mV (phono 1 and 2), 55 mV (aux. and tuner), 62 mV (tape), 0.45 mV at 1000 Hz (mic); phono input impedance 47k ohms; phono overload 230 mV at 1000 Hz; THD and SMPTE IM dist. 0.01% (phono to main out), 0.005% (aux., tuner, tape to main out); RIAA phono deviation ±0.2 dB from 30-15,000 Hz, 5-200,000 Hz -3 dB (aux., tuner, tape 1 and 2), 50-20,000 Hz -3 dB (mic); S/N (IHF "A") phono 84 dB (weighted), 73 dB (unweighted), aux., tuner, and tape 92 dB (unweighted), mic 77 dB (weighted), 70 dB (unweighted). 2.8" H × 18.9" W × 14.2" D ...... \$500

#### MITSUBISHI

#### **DA-P20 Stereo Preamplifler**

Dual-mono docking preamplifier. Specifications: input sensitivity/impedance 0.1 mV/10 ohms (phono



MC), 2.3 mV/60k ohms (phono MM), 150 mV/50k ohms (tuner, aux., tape 1/2); RIAA deviation ±0.2 dB-from 20-20,000 Hz (phono MC, MM), +0/-0.5 dB from 10-100,000 Hz (tuner, tape 1/2); THD 0.005% (phono MC), 0.003% (phono MM), 0.002% (tuner, aux., tape 1/2); S/N (IHF "A") 77 dB into 47 ohms (phono MC), 84 dB, closed circuit (phono MM), 110 dB, closed circuit (tuner, aux., tape 1/2); channel separation 80 dB at 20,000 Hz for phono MC/MM, 100 dB for tuner and tape 1/2; phono overload 12 mV at 1000 Hz with 0.1% THD (phono MC), 290 mV (phono MM); output level/ impedance 1 V/600 ohms rated, 18 V max., 150 mV/600 ohms (tape 1/2); load impedance 8-16 ohms. Features attenuator-type level controls: independent tone controls, tone-defeat, and output level controls for each channel; provisions for two tape decks with duplication and monitoring facilities from one to the other; subsonic filter; A, B or A+B speaker selections.  $6^3/4^{\prime\prime}$  H  $\times$   $16^3/4^{\prime\prime}$  W  $\times$   $8^{\prime\prime}$  D. \$430

M-PO1 Micro-Preamplifier

With built-in moving-coil head amp. Specifications: input sensitivity/impedance 100 µV/10 ohms (phono MC), 2.3 mV/50k ohms (phono MM), 150 mV/50k ohms (tuner, aux., tape 1/2); RIAA deviation  $\pm 0.2$  dB from 20-20,000 Hz (phono),  $\pm 0/2$ -0.5 dB from 10-100,000 Hz (high level); THD at 1 V output from 20-20,000 Hz -20 dB 0.005% (phono MC), 0.003% (phono MM), 0.002% (high level); S/N (IHF "A") 77 dB (phono MC), 90 dB (phono MM for 10 mV out), 110 dB, closed circuit (high level); phono overload at 12 mV (MC), 290 mV (MM); output level/impedance 1 V/600 ohms, rated (preamp out), 150 mV/600 ohms at rated output (tape 1/2). Features digital tone controls with LEDs, provisions for two tape decks with tape duplication and monitoring facilities from one to the other, and gold-plated phono input terminals. 23/4" H × 105/6" 

DA-P10 Stereo Preamplifier

Two completely separate amplifiers for left and right channels; frequency response 30-15,000 Hz ±0.2 dB (phono, RIAA), 10-70,000 Hz +0/-0.5 dB(tuner, aux., play); channel separation 100 dB at 1 kHz, 80 dB at 20 kHz (phono), 85 dB at 20 kHz (tuner, aux., play); THD 0.05% max.; S/N (IHF A) 73 dB (phono), 90 dB (tuner, aux., play); phono overload 270 mV; input sensitivity/impedance 2.2 mV/50,000 ohms (phono 1 and 2), 150 mV/60,-000 ohms (tuner, aux., play); output level 9 V max. (pre out, 50,000 ohms), 150 mV (rec out, 50,000 ohms), 50 mV (headphones, 8 ohms); 63/4" H × 16<sup>3</sup>/<sub>4</sub>" W × 8" D......\$330

#### NAIM by AUDIOPHILE SYSTEMS

#### NAC 32 Preamplifier

Features input selector for moving-magnet and moving-coil phono cartridges, tuner, and two tape; volume and balance controls; mode switch; normal, mute, and tape monitor switch. Input sensitivity 2.0 mV (MM), 0.1 mV (phono MC), 75 mV (high level): max. phono overload 200 mV (MM), 10 mV (MC); frequency response 20-20,000 Hz ±0.5 dB; THD and IM dist. 0.02%; 3" H × 8" W × 12" D ..... \$920

NAC 12S Preamplifier

Features input selector for moving-coil phono cartridge, tuner, and tape; volume and balance controls. Input sensitivity 0.1 mV (phono), 75 mV (high level); phono overload 10 mV; frequency response 20-20,000 Hz  $\pm 0.5$  dB; THD and IM dist. 0.02%; 3" H × 5" W × 12" D ...... \$650

#### NAKAMICHI

#### 630 FM Tuner/Preamplifler

See Section 2, "Tuners," under Nakamichi, for details......\$730

#### 610 Stereo Control Preampilfier

Combines preamplifier circuitry, test circuitry, and mixing facilities; 19 different inputs with full dubbing and 5-in/2-out mixing; built-in sine wave tones, pink noise, phase check, and invert capabilities; remote speaker/amplifier selection; mike input attenuators; frequency response 30-100,000 Hz  $\pm 0.75$  dB (mike), 20-100,000 Hz  $\pm 0.75$  dB (aux.), RIAA  $\pm 0.3$  dB (phono); S/N (IHF A) 65 dB (mike with 15-d8 attenuation), 80 dB (phono re 1



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#### 410 Stereo Preamplifier

#### **NIKKO**

#### **Beta III Preamplifier**

#### **Beta II Preamplifier**

#### **ONKYO**

#### P-303 Preamplifier

Features two mono amplifiers, separate moving-coil amplifier with provision for moving-magnet cartridge, and equalizer amplifier circuitry; 32-detent, 4-gang attenuator volume control; transient killer circuit with reed relay; power, volume, balance. tape monitor; phono/tuner selector, MM/MC cartridge, impedance selector (30,000, 50,000, and 100,000 ohms), and accessory terminal switch controls. Input sensitivity/impedance 100 µV/10 ohms (phono MC), 2.5 mV/30,000, 50,000, 100,000 ohms (switchable, phono MM), 150 mV/ 50,000 ohms (tuner, tape), 1.5 V/82,000 ohms (accessory receive); rated output/impedance 150 mV/2000 ohms (tape), 1.5 V/100 ohms (accessory send), 1.5 V (15 V max.)/600 ohms (output); frequency response 3.5-200,000 Hz +0/-1.5 dB (tuner), RIAA ±0.2 dB (phono); phono overload 330 mV rms at 1 kHz, 0.05% THD (phono MM), 13 mV rms at 1 kHz, 0.05% THD (phono MC); THD 0.006% (phono MM, 3 V output), 0.03% (phono MC, 3 V output); IM dist. 0.01%; S/N (IHF A) 70 dB (phono MC), 83 dB (phono MM), 100 dB (tuner). African wood veneer over Lauan plywood

U-30. System selector unit provides additional input/output facilities to P-303: phono 1, 2, and 3; tuner (aux.) 1, 2, and 3; tape monitor 1, 2, Source; record mode channel 1 to 2, channel 2 to 1, rec, off; pre-out 1, 2, 1+2, off; mode stereo (normal, reverse)/mono (L+R, L, R); speakers 1, 2, 1+2, off; headphone; meter selector reads speaker output power (10 and 100 W), pre-out (dB-scale at 1 and 10 V), off. African wood veneer over Lauan plywood;  $3^{1}/4^{n} H \times 17^{3}/4^{n} W \times 14^{9}/14^{n} D$  ...............\$400 E-30. Audio equalizer provides additional frequency notches to P-303: 63 (45/32 switchable), 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz; max. switchable range  $\pm 5/+10$  dB in 0.5/1 dB step; African wood veneer over Lauan plywood; 31/4" 

#### **OPTONICA**

#### SO-9205 Preamplifier

Features built-in moving-coil cartridge head amp; tone controls with tone defeat; switchable subsonic, low, and high filters; audio muting; two-way tape dubbing; loudness and mode switches; input selector with separate three-position phono impedance and phono capacitance selectors; LED indicators for inputs; S/N 90 dB (phono), 100 dB (aux.); phono overload 300 mV; ebony faceplate.........\$350

#### **PHASE LINEAR**

#### 4000 Series Two Stereo Preamplifier

#### 3000 Series Two Stereo Preamplifier

Features CMOS logic memory system which switches critical signal paths to 14 relays; tactile pushbutton controls; phono 1 stage for movingmagnet cartridges and phono 2 stage for movingcoil cartridges; two-deck tape monitoring and dubbing facilities; noise reduction loop (processes noise ahead of tape monitor); subsonic filter (18 dB/octave at 15 Hz); dc headphone amplifier. Specifications: dist. less than 0.04% from 20-20,000 Hz; 2.0 V rms rated output; S/N 90 dB (phono MM), 78 dB (phono MC), 91 dB (high level); RIAA phono deviation +0.3/-0.3 dB, 20-20,000 Hz ±0.1 dB (high level); input impedance 47 000 ohms (phono MM), 50, 200, or 500 ohms (phono MC), 50,000 ohms (high level); phono overload 120 mV (MM), 12 mV (MC). 31/2" H × 19" W × 8" D \$580

#### 2000 Series Two Stereo Preamplifier

Features separate bass and treble tone controls for each channel, tone defeat, active equalizer and ambient recovery circuits, tone turnover controls; two tape monitor circuits; THD 0.05%; frequency response RIAA ±0.5 dB (phono); input sensitivity 40,000 ohms (high level), 47,000 ohms (phono, 50 pF); hum and noise -88 dB (high level, 2 V), -80 dB (low level, 10 mV); 5½" H × 19" W × 6" D

Walnut side panels ......\$50

#### **PHILIPS**

#### AH 572 Preamplifier

Features lighted function display; LED touch switches; memory lock; detented volume, bass, treble, and balance controls; separate phono preamps; front-panel play/record for Tape B; tape dubbing/monitoring; tone defeat; channel mode selector:

#### **PIONEER**

#### **SPEC-1 Stereo Preamplifier**

#### **RG DYNAMICS**

#### **Dimension 3 Stereo Control Preamplifier**

Employs circuit designed to isolate cartridge-preamplifier interaction and minimize overload and TIM distortion; features bass and treble controls with tone defeat; subsonic filter; mode switch; LEDindicated input selector includes tape 1 and 2; twoway tape dubbing and monitoring; gold-plated phono input jacks; external signal processor loop. Phono input sensitivity/impedance 2 mV/47k ohms; gain 34 dB (phono), 20.5 dB (line); phono overload 200 mV at 1000 Hz (input sine wave); frequency response ±0.05 dB from 20-20,000 Hz (phono RIAA), 0.5-170,000 Hz ±3 dB (line); S/N 68 dB (phono, A weighted), 85 dB (line level); THD 0.01% at 1000 Hz (phono), 0.02% from 20-20,000 Hz (high level); silver panel with walnut side panels;  $3^{1}/_{2}$ " H  $\times$  18" W  $\times$  12" D ........... \$595

#### ROTEL

#### RC-5000 Stereo Preamplifier

Stereo dc amplifier configuration with dc NF phono equalizer and dc ND graphic equalizer; includes



built-in moving-coil head amplifier. Features 10-band octave equalizer  $\pm 10$  dB from 100-10,000 Hz; four-gang attenuated volume control; independent recording selector; subsonic and supersonic filters; full tape dubbing with three tape decks; stereo mic mixing; two independent power supplies; gold-plated input jacks and input/output facility; third power supply for relays and headphone amplifier; two headphone jacks. THD and IM dist. 0.002% (aux.) from 20-20,000 Hz; S/N (IHF "A") 85 dB (phono), 95 dB (tuner and tape); input sensitivity/impedance 2-8 mV/30-100,000 ohms (phono 1), 2 mV/50,000 ohms (phono 2), 0.1 mV/ 32 ohms (phono MC), 150 mV/50,000 ohms (tuner, aux., tape), 5 mV/600 and 50,000 ohms (mic), 150 mV/600 ohms (main in); 12 dB/octave low filter at 15 and 60 Hz, 12 dB/octave high filter at 7000 and 24,000 Hz;  $7^{15}/_{32}$ " H  $\times$  19" W  $\times$ 

#### RC-2000 Stereo Preampiffier

Four-block dc amplifier configuration with NF

#### RC-1000 Stereo Control Amplifier

Features OP equalizer amplifier and moving-coil head amplifier. Equalizer: ten-band octave equalizer with center frequencies set at 32, 63, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz,  $\pm 12$  dB boost or cut. Preamp: features three-position phono load impedance selector switch; two-way tape dubbing and monitoring; subsonic filter; -15 dB muting; input sensitivity/impedance 2.5 mV/35k, 50k, 70k ohms (MM), 0.2 mV/30 ohms (MC), 150 mV/50k ohms (aux. and tuner); frequency response 5-70,000 Hz  $\pm 0.03\%$ ; S/N 75 dB (MM), 60 dB (MC), 90 dB (aux. and tuner);  $3^{27}/32^{7}$  H  $\times 16^{19}/10^{7}$  W  $\times 11^{12}/32^{7}$  D.\$320

#### SAE

#### 2100 Stereo Parametric Preamp

Serves as complete control center; incorporates parametric equalizer; frequency response 20-20,000 Hz  $\pm 0.25$  dB; THD and IM dist. 0.005%; S/N 95 dB (phono); stepped volume control; gain control; full tape EQ/dubbing facilities; speaker switching; scope outputs; four phono circuits with separate feedback gain controls; 7'' H  $\times$  19" W  $\times$  8½" D .....

#### 2900 Stereo Parametric Preamp

#### 3000 Tone Control Preamplifler

Features two-stage phono circuit, full tape recording facilities and tape EQ, and 30 Hz, 12 dB/octave, and 100 Hz 6 d8/octave filters. Frequency response 20-20,000 Hz  $\pm 0.25$  dB (phono and aux.); THD and IM dist. 0.02%; S/N 72 dB (phono), 85 dB (aux.).  $5^{1}/4^{\prime\prime}$  H  $\times$  19 $^{\prime\prime\prime}$  W  $\times$  3 $^{1}/2^{\prime\prime}$  D....

WMC-4. Unassembled walnut cabinet .......\$45

#### **SANSUI**

#### CA-F1 DD/DC Preamplifier

Features "Diamond Differential dc circuitry" in phono equalizer section; phono moving-coil, phono moving-magnet, tuner, and aux. input selector; A-B speaker switching; tape 1, 2, and source monitor control; separate bass and treble controls with tone defeat switch; balance control; loudness contour; switchable subsonic filter control; main outputs can be fed to one or two power amps. Frequency response ±0.2 dB from 20-20,000 Hz (RIAA phono), 5-600,000 Hz (aux., tuner, and tape); THD 0.005%; S/N 90 dB (phono), 100 dB (aux., tuner, and tape); slew râte 50 V/μsec; rise time 0.6 μsec; phono overload 350 mV; nominal output 1 V; matte black finish with detachable rack-mount adaptors...

.....\$495

#### SANYO

#### **PLUS C55 Stereo Preamplifier**

Features low-noise moving-coil pre-preamp, discrete op amp moving-magnet phono preamp/equalizer, and dc-coupled class-A circuitry; bipclar power supplies; passive volume and balance controls and passive subsonic filter switch; bass and treble controls with turnover frequency switches and tone defeat; two-way tape dubbing and monitoring; input and mode selectors. Input sensitivity/impedance 2.5 mV/47k ohms (phono MM),  $100 \mu$ V/100 ohms (phono MC), 150 mV/47k ohms (aux. and tape); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-40,000 Hz  $\pm 0.5$  dB (aux. and tape); S/N (IHF A) 85 dB (phono MM), 70 dB (phono MC), 100 dB (aux. and tape), max. phono input 250 mV rms (MM), 10 mV rms (MC); includes rack-mount handles; 13/4" H × 19" W (with handles) × 10½" D ...... \$250

#### H.H. SCOTT

#### Alpha 1 Preamplifier

Features bass, midrange, and treble controls with tone defeat and bass and treble turnover frequency controls; 12 dB/octave low (-3 dB at 40 and 80 Hz) and high (-3 dB at 8000 and 12,000 Hz) filters; mic mixing; -20-dB audio muting; two-way tape monitoring and dubbing. Input sensitivity 2.5 or 9 mV switchable (phono 1), 2.5 mV (phono 2), 750 µV max. variable (mic), 250 mV (tuner, aux., tape); input impedance 47k ohms (low level), 50k ohms (high level); frequency response 20-20,000 Hz  $\pm 0.5$  dB (phono and mic), 15-35,000 Hz  $\pm 0.5$ dB (tuner, tape, aux.); THD 0.05%; IM dist. 0.08% (SMPTE); S/N (A weighted) 75 dB (phono), 90 dB (tuner, tape, aux.); rated output level 2.5 mV; includes EIA rack-mount handles; 51/6" H × 19" W × 12'/<sub>2</sub>" D ......\$400

#### **SERIES 20**

#### C-21 Stereo Preamplifler

#### SONY

#### **TA-E88B Stereo Reference Preampilfier**

Dual mono preamp features direct-coupled circuitry; built-in moving-coil head amp with separate power supply; dual-FETs and bipolar transistors in EQ and buffer amp stages; monitor switch for two tape decks and source; input selector with separate selectable phono input impedance control; subsonic filter; three-position audio muting; balance and mode controls. Input sensitivity/impedance 2.5 mV/50k ohms (phono 1), 2.5 mV/10k-100k ohms (phono 2), 0.125 mV/25 or 100 ohms (head amp), 150 mV/50k ohms (tuner, aux., tape); max. input 250 mV (phono 1 and 2), 12.5 mV (head amp); frequency response ±0.2 dB (phono RIAA). 0-500,000 Hz + 0/-1 dB (tuner, aux., tape); THDand IM dist. 0.002%; S/N (IHF A) 88 dB (phono 1 and 2), 80 dB (head amp), 105 dB (tuner, aux., 

#### **TA-E7B Preamplifier/Control Center**

Stereo preamplifier features built-in head and phono equalizer amplifiers; two-peak average power meters with meter range switch; bass and treble controls with tone defeat and turnover frequency

selectors; connections for tuner, two phono, two aux., two tape decks, and two pairs of preamp outputs: tape monitoring/dubbing facilities for two decks; front-panel Tape-2 connections; 32-tape attenuator volume control with -20-dB muting switch; rear-panel selectable phono input impedance for matching load requirements; stereo, reverse, L+R, L/R, and system check mode selector. Input sensitivity/impedance 2.5 mV/50,000 ohms (phono 1) and switchable 50k/100k ohms (phono 2), 0.125 mV/3 or 40 ohms switchable (head amp), 150 mV/50,000 ohms (tuner, aux., tape); max. input 250 mV at 1000 Hz with 0.01% THD (phono 1 and 2), 12.5 mV (head amp); output level/impedance 150 mV/1000 ohms (rec. out), 1.5 V/1500 ohms (pre out), 10 mW/3.3 ohms (headphone); THD and IM dist. 0.003%; frequency response 1-150,000 Hz + 0/-1 dB (tuner, aux., and tape)RIAA phono deviation ±0.2 dB; S/N (IHF "A") at rated input 85 dB (phono 1 and 2), 75 dB (head amp), 105 dB (tuner, aux., and tape); bass tone control ±10 dB at 25 Hz with 150-Hz turnover and at 50 Hz with 300-Hz turnover; treble tone control ±10 dB at 20,000 Hz with 4000-Hz turnover and at 40,000 Hz with 8000-Hz turnover; high (12 dB/ octave above 9000 Hz) and low (12 dB/octave below 30 Hz) filters; gold-plated phono inputs. 6<sup>3</sup>/<sub>4</sub>" H × 181/<sub>6</sub>" W × 125/<sub>6</sub>" D......\$820

#### TA-E86B Stereo Preamplifier

#### SOUNDCRAFTSMEN

#### SP4002 Signal Processor/Preamp

Combination preamplifier and 10-band octave equalizer. Preamplifier section features two sepa-



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#### PE2217R Stereo Preamplifier

Combines two discrete phono preamplifiers, discrete line amplifier, pushbutton patching, and equalizer. Features interlocked pushbuttons; discrete-octave equalization control (10 octaves/ch, ± 12 dB); full spectrum level control/channel; zerogain equalization balance; two or three tape deck dubbing capability with front-panel automatic LED tape monitoring input/out jacks; line/tape equalization selector; auto equalizer-defeat; two headphone jacks; mono selector; reverse/stereo mode; four switched and two unswitched ac outlets. Specifications: frequency response 5-100,000 Hz ±0.25 dB (high level), 20-20,000 Hz  $\pm 0.5$  dB (phono); THD and IM. dist. 0.05% at 1 V; gain 63 dB (phono), 21 dB (high level); output impedance 600 ohms max. Equalizer: S/N 96 dB; frequency response 10-100,000 Hz ±0.25 dB. Silver/gold front panel in walnut side panels; 6" H imes 19" W imes 11" D . \$549 PE2217. Same except silver/gold anodized frontpanel; 51/4" H × 19" W × 11" D ...... \$549

#### **SPECTRO ACOUSTICS**

#### 217R Preamplifier

Straightline design with no tone controls or equalization, for ultra-linear output response; front-panelaccessible cartridge-loading adjustments with 16 combinations to match and load most magnetic phono cartridges; high-level switching section permits choice of source, bidirectional-bypass copying in the tape-monitor section and stereo or mono operation; response: phono, 20-20,000 Hz  $\pm 0.5$  dB; high-level, 20-20,000 Hz  $\pm 0.1$  dB, 5-100,000 Hz  $\pm 1$  dB; dist. 0.03% THD, 0.0075% IM at rated output; rack-mountable;  $3^{11}/2^{11}$  H  $\times$  19" W  $\times$   $7^{11}/2^{11}$  D. \$285

#### **TECHNICS**

#### SU-9070 Preamplifier

Stereo dc preamplifier features built-in moving-coil head amp; three tape monitors with multi-way tape



dubbing; subsonic filter. Output voltage/impedance 20 V/600 ohms (pre out max.), 150 mV (rec out tape); frequency response 20-20,000 Hz +0/-0.1 dB (tuner, aux.), RIAA  $\pm 0.2$  dB (phono); S/N (IHF A) 88 dB (phono MM), 72 dB (phono MC), 105 dB (tuner, aux.); THD 0.004%; input sensitivity/impedance 2.5 mV/47,000 ohms (phono MM), 60  $\mu$ V/50 ohms (phono MC), 150 mV/47,000 ohms (tuner, aux.); max. phono input voltage (1 kHz, rms) 350 mV (phono MM), 8 mV (phono MC); 120-V ac, 60 Hz, 30 W;  $3^{31}/_{33}$ " H  $\times$  19" W  $\times$  1417/32" D ...\$460

#### **THRESHOLD**

#### **NS 10 Preamplifier**

Wide-bandwidth class A discrete design stereo preamplifier with 50,000,000-Hz active circuit bandwidth and 1,500,000-Hz bandpass capability; ac-



#### SL 10 Preamplifier

Direct-coupled cascode/class A stereo preamplifier features built-in moving-coil pre-preamp with separate power supply; discrete design with tantalum and polystyrene capacitors in signal path; 20,-000- $\mu$ F supply regulation; individually adjustable rear-panel impedance and capacitance settings for phono input; tape monitor switch; channel balance control. Frequency response  $\pm 0.5$  dB (RIAA phono), 0-500,000 Hz +0/-3 dB (high level); THD 0.012% from 20-20,000 Hz (phono), 0.003% from 20-5000 Hz (high level); SMPTE IM dist. 0.006% at 1 V out (phono), 0.008% at 10,000 Hz, 5 V out (high level); S/N (A weighted) 90 dB (phono); phono overload 320 mV at 1000 Hz; slew rate 150 V/ $\mu$ sec; 2.62" H × 19" W × 8" D..... \$943

#### **TOSHIBA**

#### C15 Micro Stereo Preamplifier

Features high-gain dual FET dc amplifiers; bass and treble controls with tone defeat and EQ direct; mono, subsonic, and tape/source monitor switches; input selector. Input sensitivity/impedance 2.5 mV/47k ohms (phono 1 and 2), 150 mV/47k ohms (tuner, aux., tape); phono overload 300 mV rms at 1000 Hz; frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-100,000 Hz +0/-2 dB (tuner, aux., tape); dist. 0.01% at 1 V out; S/N (IHF A) 88 dB (phono), 106 dB (tuner, aux., tape); silver finish; 2.1" H × 10.1" W × 8.2" D .....

\$300 **C15B.** Black finish.....\$310

#### **SY-665 Stereo Preamplifier**

#### **SY-335 Stereo Preamplifier**

Features twin-tape monitoring/duplicating facilities; 41-position click-stop volume control; microphone mixing with control/switch; mode and loudness switches; phono equalization amp. Max. output 1.0 V; input sensitivity/impedance 2.5 mV/ 47k ohms (phono), 150 mV/47k ohms (tuner, aux., tape 1, 2); THD 0.1%; 150 mV phono overload;

#### TRIODE LABORATORY

#### **MENTAT Stereo Preamplifier**

Vacuum-tube high-resolution preamplifier with Class A cascode phono input section and Class A single-ended voltage high-level section; actively regulated high voltage power supply; actively regulated filament supply with timing network; switchable high/low network. Input impedance 47.5k ohms (phono), 100k ohms (high level); gain 44.5 dB (phono), 15 dB (high level); rated output 2 V from 20-20,000 Hz, 20k ohms (phono), 2.5 V from 1.5-200,000 Hz, 20k ohms (high level); frequency response  $\pm 0.2$  dB from 20-20,000 Hz (phono RIAA), 1.5-200,000 Hz +0/-1.5 dB (high level); THD and IM dist. 0.05% at rated output; hum and noise below 5 mV in at 1000 Hz -65 dB (phono unweighted), -76 dB (high level, unweighted); phono overload 380 mV at 1000 Hz, 100k-ohmload, 3.5" H × 19" W × 9.5" D ...... \$1250

#### **SALESIA Stereo Preamplifier**

#### YAMAHA

#### C-2a Preamplifier

DC preamplifier features low-noise moving-coil cartridge head amplifier and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono load resistance/capacitance selector. Input sensitivity/impedance 2.5 mV/100, 47k, 68k, 100k ohms variable (phono 1 MM), 100  $\mu$ V/ 50 ohms (MC), 2.5 mV/47k ohms (phono 2 MM), 150 mV/47k ohms (aux., tuner, and tape); phono overload 350 mV at 1000 Hz (MM), 10 mV at 20,-000 Hz (MC); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA, MM),  $\pm 0.3$  dB from 20-20,000 Hz (MC), 10-100,000 Hz  $\pm 0.2$  dB (aux., tuner, tape); THD 0.003% at 5 V out (MM to pre out), 0.01% at 5 V out (MC to pre out), 0.003% at 10-V out (aux., tuner, tape); IM dist. 0.003% at 10 V out (aux., tuner, tape); S/N (IHF A) 104 dB (phono MM), 92 dB (MC), 107 dB (aux., tuner, 

#### C-4 Preamplifier

Features low-noise dc phono equalizer, moving-coil cartridge head amp, current noise-reduction circuit, and tone control amplifier circuitry; bass and treble controls with turnover frequency controls, tone defeat, and illuminated tone bypass switch; phone input with level control; low and high filter switches; mode buttons; two-way tape dubbing; illuminated -20-dB audio muting; input selector with separate phono input selector and two phono cartridge load resistance/capacitance selectors; two sets of preout terminals on rear panel with front-panel switches. Input sensitivity/impedance 2.5 mV/100, 33k, 47k, 68k, and 100k ohms (phono MM), 100  $\mu$ V/50 ohms (MC), 150 mV/47k ohms (aux., tuner, tape); phono overload 285 mV at 1000 Hz (MM), 10 mV at 20,000 Hz (MC); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 5-100,000 Hz ±0.5 dB (tuner, aux., tape); THD 0.0035% at 2 V out (MM to pre out), 0.1% at 2 V out (MC to pre out), 0.0035% at 10 V out (aux., tuner, tape), 0.02% at 8 ohms, 12 mW out (phones out); IM dist. 0.005% at 10 V out (aux., tuner, tape); S/N (IHF A) 97 dB (MM), 91 dB (MC), 106 dB (aux., tuner, tape, tone bypass on), 100 dB (tone bypass off);  $4^{1}/_{2}$ " H ×  $17^{1}/_{6}$ " W ×  $14^{3}/_{4}$ " D...... .....\$550



#### **AB SYSTEMS**

The Four-Ten Power Amplifier

#### **ACCUPHASE**

P-300 Stereo Power Amplifier

P-20 Stereo Power Amplifier

#### **ACE AUDIO**

35 × 2/Super Stereo Power Amplifier

8000 Subwoofer Mono Power Amplifier

Direct-coupled fully complementary mono amplifier designed to drive out 70-W subwoofer; 70 W continuous into 4 or 8 ohms from 20-10,000 Hz with 0.1% THD and IM dist.; frequency response 15-20,000 Hz  $\pm$ 0.1 dB; damping factor 70; slew rate 4 V/ $\mu$ sec; hum and noise -90 dB; input sensitivity/impedance 1.5 V/50k ohms;  $7^{1}/_{4}$ " H  $\times$  9 $^{1}/_{2}$ " W  $\times$  6 $^{1}/_{2}$ " D ..................................\$189

#### ADC

**B-200 Power Amplifier** 

Low-feedback all-FET Class A stereo power amplifier; 100 W/ch continuous into 8 ohms from 5-20,000 Hz with 0.2% THD and IM dist.; slew rate 150 V/µsec; sensitivity 1 V .....................\$995

#### **ADCOM**

**GFA-1 Stereo Power Amplifier** 

Fully complementary bridged mode amplifier; tor-

oidal transformer; dual power supplies; built-in protection relay and thermal overload switch. 200 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and 0.1% IM dist.; damping factor 200; slew rate 80 V/ $\mu$ sec; input sensitivity 1.5 V; black cabinet with vents on all sides;  $8^{1}/2^{n}$  H  $\times$   $10^{1}/2^{n}$  W  $\times$   $6^{1}/2^{n}$  D ...........\$400

#### **AIWA**

**SA-P22U Mini Power Amplifier** 

#### **AMBER BY H&H INTERNATIONAL**

Series 70 Power Amplifier

#### **APT**

**Apt 1 Power Amplifier** 

Features dc circuitry; mono bridging; rear-panel speaker load switch (from 2-16 ohms) with front-panel LED readout for adjustment; two-color LED readout for signal at output and overload detection; relay protection. 100 W/ch continuous, both channels driven into 4 or 8 ohms with 0.03% THD; dynamic headroom 3 dB at 4 or 8 ohms; frequency response 0-30,000 Hz +0/-0.5 dB; slew factor 10 at 20,000 Hz; output noise 80 dB below 1 W; crosstalk 70 dB at 1000 Hz between channels; dynamic range 103 dB; input sensitivity/impedance 90 mV rms (1 W)/50k ohms. Gray wrinkle baked enamel finish; 3.12" H  $\times$  16.9" W  $\times$  10.19" D......

\$640

Apt 2 Power Amplifier

#### **AUDIO RESEARCH**

**D-350B Stereo Power Amplifier** 

Linear two-channel power amplifier. Features power-line monitor meter with identified operating ranges; output power monitor meters; built-in speaker line fuse holders; logic circuitry; front-panel power supply fuses; three built-in fans. 350 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.25% THD; IM dist. less than 0.1% at rated output; S/N 110 dB (unweighted); input sensitivity/impedance 1.35 V rms/ 30,000 ohms.  $10^{1}/2^m$  H  $\times$  19" W  $\times$  17"/4" D . \$3500

**D-79 Power Amplifier** 

Vacuum tube power amplifier features cathode current bias adjust with separate controls/ch and LEDs; dual power monitors metered as safe operation/cau-

# Real Power for the Real World:

The Apt 1 Amplifier



Apt Corporation believes there's only one good reason to create a new product: a genuine need. The Apt 1 Amplifier is just such a product. With 3 dB of Dynamic Headroom, it can deliver as much as twice its 100w average rated power (20 Hz-20 kHz @ 0.03% THD) on musical peaks—just as program material so often requires, And, it can deliver this extra performance into any actual loudspeaker, not just on the test bench. The Apt 1 also incorporates new approaches to power supply, driver stage, and protection circuit design, which all contribute to a uniquely useful amplifier.

# Problem Solving in a Real System:

The Holman Preamplifier



You don't live in an ideal world—neither does your stereo music system. The Holman Preamp is the result of over 2 man-years of research into how and why components behave in real-world hifi systems. As such, it provides an unprecedented balance of features and performance, which combine toward a common goal: sonic excellence.

The Holman Preamplifier and the Apt 1 Amplifier; individually or together they make music systems work better, and sound better.

For information, check the appropriate box (es) below and send with your name and address to:

#### **Apt Corporation**

Box 512

Cambridge, Massachusetts 02139

- ☐ Apt 1 Amplifier brochure and the name of your local dealer.
- ☐ Holman Preamplifier brochure.
- ☐ For an Apt 1 Owner's Manual, please send \$4 (\$5 foreign).

CIRCLE NO. 63 ON READER SERVICE CARD



tion markings; ac voltage meter; two front-panel line/fuse out, plate/fuse out, and screen/fuse out



#### **D-110B Power Amplifier**

#### **D-100B Stereo Power Amplifier**

.....\$100

#### **D-52B Power Amplifier**

#### **AUDIO SCIENTIFIC by SUPEREX**

#### 1500 Power Amplifier

Class A power amplifier; features separate left and



right LED power output bar graph display with three-LED clipping and display range selector; 85 W/ch continuous; S/N 115 dB (A weighted); dynamic headroom 0.8 dB; clipping headroom 3.4 dB. \$750

#### 1560 Power Amplifier

Class A stereo power amplifier; 50 W/ch continuous; frequency response 8-150,000 Hz ±0.5 dB; S/N 115 dB (A weighted); dist. 0.005% at 50 W ... \$550

#### **AUDIRE**

#### **DM 700 Power Amplifier**

#### 2M Power Amplifier

Features clipping LEDs, twin VU meters, VU meter range selector switch, and ac switch; 100 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz, 120 W/ch into 4 ohms; THD and IM dist. less than 0.05% at 100 W; power bandwidth 10-20,000 Hz ±0.2 dB; frequency response 10-60,000 Hz ±0.2 dB at 1 W; hum and noise -100 dB; damping factor 150; input sensitivity/impedance 1.0 V rms/33k ohms. Includes front-panel rack mount; 51/4" H × 15" W × 13" D ... \$632 Model 2. Similar to 2M minus VU meters with selector switch and ac switch ..........\$495

#### Crescendo Power Amplifier

Discrete power amplifier features dual 12-LED vertical logarithmic power output display. 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 10-20,000 Hz  $\pm 0.2$  dB; hum and noise -100 dB; slew rate 40 V/ $\mu$ sec; damping factor 150; input impedance 51,000 ohms; 5.25" H  $\times$  19" W  $\times$  9" D .......................\$350

#### **BGW**

#### **Model 410 Power Amplifier**

200 W continuous into 8 ohms; frequency response 20-20,000 Hz + 0/-0.2 dB; THD 0.02%; IM dist. 0.02%; residual hum and noise -110 dB; slew rate 40 V/μsec.; rise time 3 μsec; input sensitivity 2 V for rated output; high speed relay activated arc-interrupter speaker protection; four-position speaker selector; low-impedance headphone jack; two input sensitivity controls; meter display of average responding LEDs (10 on each of two meters) with three-position (-20, -10, and 0 dB) meter sensitivity switch;  $5^{1/4}$ " H × 19" W × 11 $^{1/4}$ " D ...... \$899 Model 210. Similar to Model 410 except 100 W/ch continuous and input sensitivity 1.4 V for 100 W. Features similar minus input sensitivity controls and headphone jack......\$659 Cabinet designed for either 410 or 210 ....... \$45

#### BOZAK

#### 929 Audio Power Amplifier

150 W/ch continuous sine wave into 8 ohms (20-20,000 Hz) at 0.2% THD; response at full output 20-20,000 Hz +0 dB/-0.2 dB; THD at 1000 Hz 0.1%; response 3-100,000 Hz +0/-3 dB (at 1 W); damping factor 100 at 20 and 1000 Hz; S/N (unweighted) 100 dB; input impedance 35,000 to 100,000 ohms (100k pot); two power meters; matte black front panel; optional walnut veneer enclosure extra; 7'' H  $\times$  17 $^3$ / $_4''$  W  $\times$  12'' D .......\$925 **929-V.** Same as 929 without the meters ......\$825

#### 939 Audio Power Ampiifier

70 W/ch continuous sine wave into 8 ohms (20-20,000 Hz) at 0.2% THD; frequency response 20-20,000 Hz +0/-0.2 dB; S/N (unweighted) 90

dB; subsonic switch; damping factor 100; input level controls; 32 dB gain; black front panel; optional walnut veneer enclosure extra............\$525

#### **Professional Line**

#### CMA-2-80 Power Amplifier

**CMA-1-80.** Mono version of CMA-2-80; frequency response 20-20,000 Hz ±1 dB; input sensitivity 1.0 V......\$575

#### CMA-2-65 Power Amplifier

Dual power amplifiers feature direct-coupled circuitry; electronically protected output; overheat protection. 65 W/ch continuous into 8 ohms, 130 W total; frequency response 20-20,000 Hz +0/-1 dB; THD 0.1% at 1000 Hz; IM dist. 0.2% (SMPTE); damping factor 100 at 20 and 1000 Hz; rise time 3  $\mu$ sec; S/N 90 dB unweighted; input sensitivity 0.6 V; 5'/4" H × 19" W × 10'/4" D...... \$575

#### **BRYSTON**

#### **4B Stereo Power Amplifier**

200 W/ch into 8 ohms (400 W/ch into 4 ohms, 800 W bridged into 8 ohms) over 20-20,000 Hz with 0.05% THD and 0.025% IM dist. at 200 W/ch; S/N 100 dB; crosstalk below 100 dB; slew rate 60 V/  $\mu$ sec; damping factor 500 (8 ohms, 20 Hz); input sensitivity/impedance 1.25 V/50,000 ohms; has bridging switch; each channel separated back to line cord; LED pilot light and overdrive (clipping) indicators;  $5^{1}/4^{n}$  H  $\times$  19" W  $\times$  131/2" D ....... \$1295

#### 3B Stereo Power Amplifier

#### **2B Stereo Power Amplifier**

#### **CARVER**

#### C-500 Power Amplifier

Features FET signal circuitry and extra output transistors; dual moving LED switchable peak/peak-hold bar graph display with VU ballistics; left/right sensitivity controls with +15 dB sensitivity display switch; LED overload indicator. 251 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.05% THD; IM dist. 0.06% at 200 W; frequency response 1-250,000 Hz  $\pm$ 0.25 dB; S/N 110 dB (A weighted); slew rate 80 V/ $\mu$ sec; dynamic range 70 dB. Brushed champagne gold finish with brown trim;  $6^{1}/4^{n}$  H  $\times$  19" W  $\times$  9 $^{1}/4^{n}$  D ..............\$689

#### M-400 Power Amplifier

Features magnetic field circuitry that eliminates need for oversized heatsinks, power transformers,

and electrolytic capacitors; dual moving LED vertical peak level display with VU ballistics. 200 W/ch



continuous into 8 ohms from 1-20,000 Hz with 0.05% THD and 0.06% IM dist.; frequency response 1-250,000 Hz  $\pm$  0.25 dB; S/N 100 dB (A weighted); slew rate 80 V/ $\mu$ sec; dynamic range 50 dB. Brushed champagne gold finish with brown trim;  $6^{3}/4^{n}$  H  $\times$   $6^{3}/4^{n}$  W  $\times$   $6^{3}/4^{n}$  D ...................\$349

#### **CONRAD-JOHNSON**

#### Vacuum Tube Power Amplifler

#### **CROWN**

#### M-600 Power Amplifier

Monaural power amplifier features peak/average power meter with LEDs and adjustable thresholds;



changeable input control modules; short, mismatch, open circuit, high line voltage and input overload protection; turn-on delay. 600 W into 8 ohms over 1-20,000 Hz with 0.05% THD and 0.01% IM dist., 1000 W continuous into 4 ohms over 1-15,000 Hz with 0.05% THD; frequency response 0-100,000 Hz  $\pm 1$  dB (1 W); input sensitivity 3.46 V rms  $\pm 1\%$  for 600 W continuous into 8 ohms; hum and noise 120 dB below rated output; phase response +0/-15 degrees (0-20,000 Hz, 1 W into 8 ohms); damping factor greater than 800; input impedance 25,000 ohms ±30% (standard input); 120- and 240-V ac, 50-60 Hz, 80 W (idle), 1000 W (at rated output); fits 19-in standard rack mount; 8<sup>3</sup>/<sub>4</sub>" H × 19" W × 16<sup>1</sup>/<sub>2</sub>" D ...... \$2195 M-2000. Consists of two M-600 units coupled together; 2000 W into 8 ohms over 1-15,000 Hz with 0.05% THD and 0.01% IM dist., 1200 W into 16 ohms over 1-20,000 Hz with 0.05% THD; frequency response 0-50,000 Hz  $\pm 1$  dB (1 W into 8 ohms); input sensitivity 3.16 V rms  $\pm 1\%$  for 2000 W into 8 ohms; hum and noise 115 dB below rated output; phase response +0/-20 degrees (0-20,000 Hz, 1 W into 8 ohms); damping factor greater than 250; 120- and 240-V ac, 50-60 Hz 160 W (idle), 3800 W (at rated output);  $17^{1/2}$ " H  $\times$ 

#### **SA-2 Power Amplifler**

Features dual-LED input/output comparator display indicators; stereo/mono switch; remote mute; four on-board computers that analyze demand and immediate history of amplifier and load for max. output power; two-speed fan cooling. 220 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD and 0.01% IM dist; frequency response

#### **PSA-2 Power Amplifier**

#### DC-300A Stereo/Mono Amplifier

#### D-150A Stereo/Mono Power Amplifler

Single- or dual-channel power amplifier. Stereo mode: 80 W/ch into 8 ohms over 1-20,000 Hz with 0.05% THD and 0.01% IM dist.; frequency response 0-100,000 Hz  $\pm 1$  dB (1 W into 8 ohms); input sensitivity 1.19 V  $\pm 2\%$  for 80 W into 8 ohms; hum and noise 110 dB below rated output; phase response  $\pm 0/-15$  degrees (0-20,000 Hz, 1 W); damping factor greater than 400; input impedance 25,000 ohms  $\pm 30\%$ ; short, mismatch, open circuit, thermal, and input overload protection; 120-and 240-V ac  $\pm 10\%$ , 50-400 Hz, 30 W (idle), 250 W (at rated output); includes IOC (input/output comparator);  $5^1/4$ " H  $\times$  17" W  $\times$  8 $^3/4$ " D.........\$599 **5R.** Cabinet .................\$45

#### PL-1 Power Amplifier

Features LED input-output comparator readout display; mono/stereo switch; 50 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD; 0.00095% IM dist. at 50 W; frequency response 5-100,000 Hz +0/-3 dB; S/N 110 dB below rated output;  $3^{1}/_{2}$ " H  $\times$  19" W  $\times$  12 $^{1}/_{4}$ " D ...............\$499

#### **D-75 Power Amplifier**

Single- or dual-channel power amplifier. Features two IOCs (input/output comparators), three meter indicators (two signal and one power), and separate signal and chassis grounds. Stereo: 35 W/ch continuous into 8 ohms from 20-10,000 Hz at 0.05% THD, 45 W/ch continuous into 4 ohms from 20-20,000 Hz at 0.05% THD; frequency response 20-20,000 Hz ±0.1 dB and 5-100,000 Hz  $\pm 1.2$  dB at 1 W into 8 ohms; IM dist. 0.05% max. from 0.01-0.25 W; slew rate 6 V/µsec; damping factor 400 from 0-400 Hz into 8 ohms; rated for 4and 8-ohm loads, safely handles purely reactive loads; input sensitivity 0.9 V ±2% for 35 W into 8 ohms. Mono: 95 W continuous into 8 ohms from 20-20,000 Hz at 0.05% THD; frequency response at 1 W into 16 ohms from 20-20,000 Hz ±0.2 dB, from 6-50,000 Hz  $\pm 1$  dB. General: hum and noise 106 dB below rated output from 20-20,000 Hz; phase response +10, -15 degrees from 20-20,000 Hz at 1 W; input impedance  $\pm 30\%$  at 20,000 ohms (balanced),  $\pm 30\%$  at 10,000 ohms (unbalanced), ±30% at 25,000 ohms (unbalanced phone jack); amplifier output protection volt-amp limiting circuit; ac voltages from 100-240 V ±10% between 50-400 Hz; 13/4" H × 19" W × 3" D.. \$399

#### **DB SYSTEMS**

#### **DB-6 Power Amplifier**

Features Class A, FET, and digital circuitry; 12 dB/



CURRENT SPECIALS!

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TEAC A-430 \$315.00

PIONEER SX-780 \$199.00

> AKAI GXM-30 \$195.00

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octave subsonic filter; peak-clipping LEDs; electronic clamp (in place of relays). 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.003% THD, 60 W continuous into 4 ohms; THD 0.0008% at 1000 Hz; IM dist. less than 0.002%; frequency response 20-40,000 Hz + 0/-1 dB; input sensitivity/impedance 1 V/ 50,000 ohms; S/N 112 dB at 1 V in (A weighted), 96 dB at 1 W into 8 ohms (A weighted); slew rate 15 V/µsec; damping factor greater than 400 from 20-1000 Hz, 40 at 20,000 Hz. 4.9" H  $\times$  16" W  $\times$ 12.8" D ......\$595 DB-6M. Similar to DB-6 except bridged mono amplifier with 140 W continuous with 0.008% THD, 225 W continuous into 4 ohms; slew rate greater than 30 V/μsec.....\$650

#### DENON

**POA-1003 Power Amplifier** 

100 W/ch continuous both channels driven into 4 ohms from 20-20,000 Hz at 0.03% THD, 85 W/ch continuous into 8 ohms; IM dist. 0.02%; power bandwidth 3-70,000 Hz; frequency response 0-100,000 Hz +0/-1 dB; input sensitivity/impedance 1 V rms/50k ohms; output impedance 0.04 ohms; damping factor 200 into 8 ohms; S/N 119 dB (IHF "A"); 6 dB/octave rolloff. Features cascode coupling at first stage, low noise FET differential amp, complementary ICL/OCL circuitry and left/right power transformer meters. 200 mm H × 410 mm W × 285 mm D......\$870

#### **ELECTRO RESEARCH**

A-75Vi Power Amplifier

#### **EUMIG USA**

M-1000 Power Amplifier

Time-processed dc circuitry with high-speed transistors in driver and output stages; switchable ca-



#### **DAVID HAFLER**

**DH-200 Power Amplifier Kit** 

Features class AB output stages and symmetrical

mirror-image complementary push-pull input-to-output circuitry; incorporates two assembled and tested amplifier modules; has mono bridging capability to 300-W conversion; 100 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; frequency response 1-100,000 Hz – 3 dB at 1 W; damping factor 150 at 1000 Hz, 8 ohms; slew rate 30 V/µsec; rise time 2.5 µsec; input sensitivity/impedance 1.5 V rms/22,000 ohms; available in kit or assembled form. Kit.................\$300

#### HARMAN/KARDON

Citation 16a Power Amplifier

150 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; power bandwidth 5-45,000



Citation CRM. Floor-standing rack mount for 16a and 16as \$285

Citation 19 Power Amplifier

100 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.08% THD; frequency response 5-45.000 Hz  $\pm 0.5$  dB; IM dist. 0.08%; hum and noise -100 dB; damping factor 125; input sensitivity 1.25 V for rated output; may be bridged for 220 W into single 16-ohm load over 20-20,000 Hz with 0.16% THD;  $5^{1}/_{4}$ " H  $\times$  16" W  $\times$  14 $^{3}/_{4}$ " D .......................\$499

#### **HEATH**

AA-1640 Stereo Power Amplifier

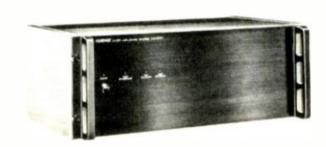
200 W/ch min. continuous into 8 ohms at 0.1% THD over 20-20,000 Hz; frequency response 7-50,000 Hz +0/-1 dB, 5-100,000 Hz +0/-3 dB; IM dist. 0.1%; input sensitivity 1.5 V for full output; turn-on delay, relay, and fuses to protect speakers; optional peak-reading meters display output in dB and watts into 8 ohms;  $7^{1}/4^{\prime\prime}$  H  $\times$  19" W  $\times$  18" D.

 Kit
 \$450

 **Dptional Meters.** Kit
 \$60

AA-1600 Stereo Power Amplifier

Features left/right peak output, high temperature, and power on LEDs: 125 W/ch continuous into 8



ohms from 20-20,000 Hz with 0.05% THD, TłM, and IM dist.; frequency response 7-50,000 Hz  $\pm 1$  dB; hum and noise -100 dB;  $7^{1}/e^{n}$  H  $\times$  19" W  $\times$ 

13" D. Kit......\$360

**AA-1515 Stereo Power Amplifler** 

70 W/ch min. continuous into 8 ohms at 0.08% THD over 20-20,000 Hz; frequency response 8-45,000 Hz + 0/-1 dB; input sensitivity 2 mV (phono), 150 mV (aux., tuner, tape, tape monitor, and tape dub); secondary controls concealed behind fold-down front panel; outputs for two speaker pairs; stereo headphone jack; lighted power meters and program legends;  $6^{1/a}$ " H ×  $17^{1/2}$ " W ×  $14^{1/4}$ " D. Kit.........\$300

AA-1219 Stereo Power Amplifier

#### HITACHI

**HMA-8300 Power Amplifier** 

Features two-stage (low power output and high power output) Class G amplification; pure complementary OCL circuitry; two peak meters; left and right output level controls; subsonic filter; 200 W/ch continuous into 4 or 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 5-80,000 Hz ±1 dB; input sensitivity/impedance 1 V/50,000



ohms; load impedance 4-16 ohms; damping factor 50 (20-20,000 Hz, 8 ohms); channel separation 80 dB (1 kHz, 8 ohms); S/N 110 dB (IHF A network);  $7^2/_{10}$ " H ×  $17^1/_{0}$ " W × 16" D...........\$800

**HMA-7500 Power Amplifier** 

MOS FET power amplifier with pure complementary dc OCL and two-stage differential circuitry systems. Features calibrated peak power meters, two-speaker switching, protection relay for power resistors and connected speakers, and subsonic filter. 75 W/ch, both channels driven into 8 or 4 ohms from 20-20,000 Hz at 0.01% THD; THD and IM dist. 0.01% at rated output; IHF power bandwidth 5-40,000 Hz at 0.01% THD; frequency response 0-200,000 Hz + 0/-1 dB; input sensitivity/impedance 1 V/50,000 ohms; load impedance 4-16 ohms; damping factor 60; S/N 120 dB (IHF "A"); channel separation 105 dB at 1000 Hz, 70 dB at 100,000 Hz; output terminal 4-16 ohms (speaker A or B), 8-16 ohms (speaker A + B); one ac outlet. 

**HMA-6500 Power Amplifier** 

Features MOS FETs and direct-coupled circuitry; electronic power protection circuitry; dual power meters; two-speaker switching. 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; IM dist. 0.005% at half-rated output; frequency response 0-100,000 Hz +0/-1 dB (dc setting), 5-100,000 Hz +0/-1 dB (normal setting), input sensitivity/ impedance 1 V/50k ohms; S/N 115 dB (IHF A); damping factor 50 at 1000 Hz, 8 ohms; 6'' H  $\times$   $17^{1/6}''$  W  $\times$   $12^{1/16}''$  D .................................\$350

#### JVC

M-7070 Mono Power Amplifier

Features dc circuitry with power MOS FETs in output stage; Class-D power supply; 12-LED peak power bar graph display; two-speaker switching; 120 W into 8 ohms from 20-20,000 Hz with 0.003% THD, 240 W into 4 ohms; frequency response 0-100,000 Hz +0/-0.5 dB; S/N 120 dB

#### M-7050 Stereo Power Amplifier

Features Class A ICL dc circuitry; dual illuminated power meters; power supply with electrolytic capac-



#### M-3030 "DC" Stereo Power Amp

#### **KENWOOD**

#### **Audio Purist Group**

L-09M Single-Channel Power Amp

300 W continuous into 8 ohms over 20-20,000 Hz with 0.02% THD; IM dist. 0.007%; frequency response 0-100,000 Hz +0/-2 dB; residual noise less than 35  $\mu$ V; S/N 120 dB; triple push-pull class AB full complementary symmetry circuitry; chimney-type structural heat sinks; gold-plated screw-type pin plugs with special audio cable for preamp connection; remote power switch for control by L-07CII control amplifier;  $6^{1}/_{2}$ " H  $\times$  19" W  $\times$  161/<sub>6</sub>" D \$700

#### L-07MII Power Amplifier

Features dc circuitry; single-channel power supply system; direct-drive method with short 1-m speaker cable for close positioning of power amp and speakers; pure complementary symmetrical push-pull circuitry with dual-gate FETs in input stages and constant-current supplies; gold-plated plugs and connectors; full protection circuitry. Output 150 W minimum continuous into 8 ohms from 20-20,000 Hz with 0.007% THD; IM dist. 0.003%; frequency response 0-600,000 Hz +0/-3 dB; S/N 120 dB short-circuited; damping factor 120 from 0-20,000 Hz, 8 ohms; slew rate  $\pm$  170 V/ $\mu$ sec; rise time 0.55  $\mu$ sec at  $\pm$ 1, 20, or 40 V; input sensitivity/impedance 1 V/50k ohms;  $6^3/32^m$  H  $\times$   $7^7/4^m$  W  $\times$   $15^{11}/32^m$  D.

L-05M. Similar to L-07MII except 100 W continuous into 8 ohms with 0.005% THD; IM dist. 0.001%; damping factor 150 from 0-20,000 Hz, 8 ohms \$425

#### LUX

#### M-12 Stereo Power Amplifier

#### **B-12 Mono Power Amplifier**

Direct-coupled mono power amplifier. Features power supply for left/right channels; DML-IC to suppress dc drift; input capacitor in/out selector; input attenuator. 150 W continuous into 8 ohms from 20-20,000 Hz with 0.006% THD and IM dist.; frequency response 0-100,000 Hz -1 dB; input sensitivity/impedance 900 mV/20,000 ohms; S/N better than 110 dB (IHF "A"); damping factor 120 into 8 ohms at 1000 Hz.  $3^3/4^{\prime\prime}$  H ×  $17^3/16^{\prime\prime}$  W ×  $12^{15}/16^{\prime\prime}$  D

#### **Laboratory Reference Series**

#### Luxman 5M21 DC Stereo Power Amp

Features pure dc design; class A/B output stage; separate dual polarity supplies for each channel; speaker and amplifier protection circuits; electrostatic/normal speaker switch. 100 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.008% THD and IM dist.; frequency response 0-100,000 Hz  $\pm 0/-1$  dB; damping factor 80 (8 ohms); input sensitivity 890 mV; input impedance 50,000 ohms; residual hum and noise 0.1 mV; crosstalk  $\pm 0$ 0 dB (1 kHz); S/N (IHF A) 120 dB; slew rate 30 V/ $\pm 0$ 5.8" H  $\pm 0$ 7.7" W  $\pm 0$ 8 design supplementation in the stage of the supplementation in the supplementation i

#### **MARANTZ**

#### **300DC Power Amplifier**

#### 170DC Power Amplifier

#### **MERIDIAN by ANGLO AMERICAN**

#### 103D Stereo Power Amplifier

Fully complementary and cascade-type circuitry; dual power supplies; 45 W/ch into 8 ohms from 20-20,000 Hz with 0.1% THD and IM dist.; S/N 90 dB (CCIR); chocolate brown textured enamel finish with gold-blocked lettering;  $4''H \times 11''W \times 12''D$ .

\$699

103. Similar to 103D except has one power supply;
35 W/ch under same conditions;  $2'' H \times 5.5'' W \times 12'' D$  \$485

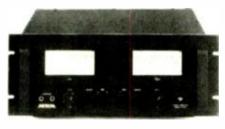
#### 105 Mono Power Amplifier

Has outboard power supply that may be collated next to speakers; full electronic protection; 100 W continuous into 8 ohms from 20-20,000 Hz with 0.1% THD and IM dist.; S/N 90 dB (CCIR); chocolate brown textured enamel finish with gold-blocked lettering; 2" H  $\times$  11" W  $\times$  12" D................\$449

#### **METRON**

#### A-4000 Power Amplifier

Features two illuminated peak power meters cali-



brated to 50 dB; level controls adjustable in 1-dB increments; two input switches with LED; A/B

#### M-200 Power Amplifier

Features illuminated power averaging meters calibrated to +3 dB at clipping point; stepped 2-dB level controls; protection indicator. 125 W continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist., 240 W continuous into 4 ohms; frequency response 2500-200,000 Hz -3 dB, 5-100,000 Hz -1 dB; S/N greater than 105 dB (unweighted); slew rate 70 V/ $\mu$ sec; damping factor min. 175 at 100 Hz into 8 ohms; input sensitivity/impedance 1.4 V/10,000 ohms. 5.875" H  $\times$  19" W  $\times$  13" D ...............\$600

#### **MITSUBISHI**

#### **DA-A15DC Dual-Mono Power Amplifier**

Direct-coupled and can amplify dc signals; 150 W/ch into 8 ohms from 20-20,000 Hz with 0.01%



DA-M10. Power output level meter unit for DA-A15DC, DA-A10DC, and DA-A7DC amplifiers; power amplifier function controls on meter unit front panel; 63/4" H × 163/4" W × 47/6" D....... \$170

#### M-A01 Micro-Power Amplifier

70 W/ch continuous, both channels driven into 8 ohms from 15-20,000 Hz at 0.01% THD; THD 0.006% at 1 W/ch; IM dist. 0.008% at rated power; power bandwidth 10-60,000 Hz (IHF) at 0.05% THD; frequency response 20-20,000 Hz  $\pm$ 0.1 dB at rated power; input sensitivity/impedance 1 V/50k ohms; damping factor 100 from 20-20,000 Hz; S/N at rated power 123 dB closed circuit (IHF "A"); slew rate 30 V/ $\mu$ sec. Features dc amplification, peak-level LED indicators, and large heat sinks.  $5^{1}/6^{\circ\prime\prime}$  H  $\times$   $10^{5}/6^{\circ\prime\prime}$  W  $\times$   $9^{5}/6^{\circ\prime\prime}$  D.........\$500

#### **NAIM by AUDIOPHILE SYSTEMS**

#### NAP 250 Power Ampilfier

#### **NAKAMICHI**

#### **620 Stereo Power Amplifier**

100 W/ch continuous sine wave into 8 ohms over 5-20,000 Hz with 0.01% THD and 0.002% IM dist.; frequency response 5-100,000 Hz ±0.5 dB; S/N 120 dB (IHF A); class B operation with "complete-mirror" push-pull circuitry; complete speaker and power transistor protection; peak indicating lamps with selectable triggering points; 63/4" H × BA-100. Self-powered unit permits bridging of Nakamichi 420 and 620 power amplifiers for monaural operation; single unit connects stereo outputs of preamplifier to two power amplifiers for stereo operation; bridged 620 is rated at 350 W min. continuous sine wave into 8 ohms over 5-20,000 Hz with 0.05% THD, bridged 420 is rated at 120 W min. continuous sine wave into 8 ohms over 5-20,000 Hz with 0.05% THD; bridged Nakamichi amplifiers are stable with loads of 8 ohms or more;  $2^{1}/4^{\prime\prime}$  H  $\times$ BA-150. Same as BA-100 but powered by PS-100 **PS-100 Power Supply.** Provides  $\pm 10 \text{ V}$  dc to operate the BA-150 and other Nakamichi BlackBox Series components; can power up to 6 components....\$75

#### **420 Stereo Power Amplifier**

50 W/ch min. continuous sine wave into 8 ohms over 5-20,000 Hz with less than 0.02% THD and 0.002% IM dist.; frequency response 5-50,000 Hz  $\pm$  +0/ $\pm$ 1 dB; S/N 110 dB (IHF A); damping factor 100; unconditional load stability; full amplifier and loudspeaker protection;  $3^{3}/_{32}$ " H  $\times$  16" W  $\times$  8 $7/_{0}$ " D. \$390

#### NIKKO

#### Alpha VI Power Amplifier

DC stereo power amplifier features mono bridging; pair of FETs coupled to cascode amp and current



source and differential amp coupled to cascode amp and current mirror and triple Darlington configuration with four parallel SEPP output stages; separate power supplies and regulated power supply for input and voltage translator stages; dual peak power meters; A-B speaker switching; two-speed cooling fan; power limiters and wide-gap relay protection circuitry with LED overload and high-temperature indicators. Output 300 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD and IM dist., 650 W bridged with 0.02% THD; damping factor 150 at 8 ohms, 1000 Hz; S/N 115 dB (IHF A); input sensitivity 1 V; matte black finish;  $7^3/_{16}$ " H × 19" W ×  $18^5/_{16}$ " D.... \$1400

#### Alpha III Power Amplifier

#### Aipha II Power Amplifier

Features two VU meters with four-button range con-

#### **ONKYO**

#### M-505 Stereo Power Amplifier

Features two mono amplifiers with own power supply; large heatsinks; dc amplifier circuitry; relay-operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster controls; "P" input and speaker outputs. 105 W/ch continuous, both channels into 8 ohms over 20-20,000 Hz with 0.05% THD (140 W/ch into 4 ohms); IM dist. 0.05%; damping factor 100 (8 ohms, 1 kHz); frequency response 0-150,000 Hz + 0/-1.5 dB; input sensitivity 1.5 V; input impedance 100,000 ohms; load impedance 4-16 ohms; S/N 110 dB (IHF A); embossed vinyl over metal cabinet.  $6^{1/2}$ " H  $\times$   $17^{3}$ /4" W  $\times$   $12^{11}$ /14" D .......\$580

#### **OPTONICA**

#### SX-9305 Power Amplifier

Features three-color-LED power output bar graph display; graphic spectrum analyzer; two LEDs for protection circuitry; two-speaker switching; detented volume control. 100 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD; ebony faceplate................\$850

#### **PHASE LINEAR**

#### **D-500 Series Two Power Amplifier**

505 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.09% THD, 800 W continuous into 4 ohms at 1000 Hz; IM dist. 0.09%; damping factor 1000/min; S/N 110 dB (IHF "A"). Features dual LED peak-responding meters; two input sensitivity controls; high/low impedance operating modes; high frequency limiters; automatic speaker safeguard system. 7" H × 19" W × 15" D ...................\$1500

#### 700 Series Two Stereo Power Ampilfier

#### 400 Series Two Stereo Power Amplifier

#### 300 Series Two Power Amplifier

#### **PHILIPS**

#### AH 578 Stereo Power Amplifier

Features switchable subsonic filter; function dis-

#### **PIONEER**

#### **SPEC-2 Stereo Power Amplifier**

250 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 1-80,000 Hz +0/-1 dB; damping factor 70; hum and noise -110 dB (IHF A); impedance selector for 4 or 8 ohms; input sensitivity control; two peak power level meters; built-in surge current control and protection circuits;  $6^7/a^m$  H  $\times$   $18^{15}/1a^m$  W  $\times$   $13^3/1a^m$  D ....... \$995

#### **SPEC-4 Stereo Power Amplifier**

#### **PS AUDIO**

#### **PS Model One Power Amplifier**

Class AB power amplifier with front-panel power switch and LED; 80 W continuous into 8 ohms; slew rate 75 V/µsec......\$380

#### QSC

#### A 41 Power Amplifier

A 42. Same as A41 except has LED power output



bar level display, LED TDI indicator, and power limit control with LED \$948

A 31. Similar to A41 except 125 W/ch under same conditions \$674

A 32. Same as A31 except has additional features of A42 \$798

A 21. Similar to A41 except 80 W/ch under same conditions \$574

A 22. Same as A21 except has additional features of A42 \$698

#### A 5.1 Power Amplifier

Features ac-coupled circuitry providing dc and subaudio protection; dual power supplies; balanced and unbalanced phono jack inputs; two calibrated gain controls. 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.1% THD; IM dist. 0.05% (SMPTE); frequency response

#### ROTEL

#### **RB-5000 Stereo Power Amplifier**

#### **RB-2000 Stereo Power Amplifier**

#### **RB-1000 Power Amplifier**

#### SAE

#### 2600 Stereo Power Amplifier

400 W/ch continuous, both channels driven into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist. (600 W/ch continuous into 4 ohms with 0.1% THD); frequency response 20-20,000 Hz  $\pm 0.25$  dB; S/N 100 dB; input sensitivity 2.12 V; relay protection for speakers; fully complementary plus parallel output stage; 7" H  $\times$  19" W  $\times$  14" D.\$1350

#### 2400L Stereo Power Amplifier

200 W/ch continuous, both channels driven into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.25$  dB; S/N 100 dB; input sensitivity 1.5 V; relay protection for speakers; volt/amp limiter; complementary double differential inputs and complementary series-connected output stages; LED display; feedback level control; 7'' H  $\times$  19" W  $\times$  121/2" D ... \$850 WMC-2. Unassembled walnut cabinet ..........\$50

#### 2300 Stereo Power Amplifier

150 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.25$  dB; S/N 100 dB; input sensitivity 1.5 V. Features fully complementary circuits, toroidal power supply, full protection, and LED display for output monitoring. 5 $^{1}/_{4}$ " H  $\times$  19" W  $\times$  12 $^{1}/_{2}$ " D......................\$700 SR-5. Unassembled roll-around rack walnut cabinet for 2300 ................................\$40

#### 2200 Stereo Power Amplifier

100 W/ch continuous, both channels driven into 8

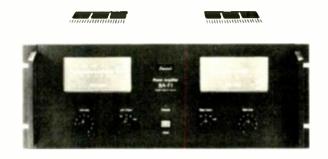
#### 3100 Stereo Power Amplifier

50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.25$  dB; S/N 100 dB; input sensitivity 1.0 V. Features fully complementary circuits, toroidal power supply, thermal, signal relay, and electronic protection, and LED display for output monitoring.  $5^{1}/4^{2}$  H  $\times$  19" W  $\times$   $8^{1}/2$ " D ................................\$300 WMC-3. Unassembled walnut cabinet ................\$45

#### SANSUI

#### **BA-F1 DD/DC Power Amplifier**

Features "Diamond Differential dc circuitry"; dual peak power meters calibrated in dB and W; left/right input level controls; speaker switching for two sys-



#### SANYO

#### PLUS P55 Power Amplifier

Features dc-coupled FET circuitry and MOS FET output stage; fluid convection radiator dissipates



#### H.H. SCOTT

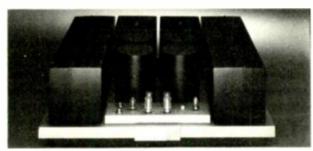
#### Alpha 6 Power Amplifier

Features dc circuitry; dual computer-grade - 10, 000-μF electrolytic capacitors; bimodal electrosensor relay protection; two logarithmic power meters; two-way speaker switching; separate channel level controls. 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.1% THD and IM dist.; S/N 100 dB (A weighted); frequency response 10-50,000 Hz; damping factor 50 at 1000 Hz; slew rate 12 V/μsec; input sensitivity/impedance 1 V/25k ohms; includes EIA rack-mount handles; 51/4" H × 19" W × 121/2" D............\$400

#### **SERIES 20**

#### M-25 Stereo Power Amplifier

Class AB stereo power amplifier with current mirrorloaded three-stage Darlington push-pull comple-



#### M-22 Stereo Power Amplifier

#### SONY

#### **TA-N88B Stereo Power Amplifier**

#### **TA-N7B Stereo Power Amplifier**

#### **TA-N86B Power Amplifler**

Features all-stage direct-coupled design circuitry; three-mode amplification (Class B, Class A, mono); pulse-locked power supply; two sets of inputs for direct- or capacitor-coupled operation. 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.007% (stereo) and 0.015% (mono) THD (Class B), 18 W/ch under same conditions (Class A), 200 W (mono) .....................\$600

#### SOUNDCRAFTSMEN

#### "New Class H" Stereo Power Amplifiers

250 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD; IM dist. 0.05%; S/N better than 105 dB; slew rate 50 V/µsec; damping factor greater than 100; input sensitivity/impedance 1.3 V/15-50,000 ohms; "Vari-Portional" system meters output power requirements for optimum efficiency; class AB amplifier; solid-state crowbar fail-

1980 EDITION 69



safe overload protection circuitry with automatic reset; nonlimiting output circuitry; black anodized front panel with silver trim and walnut side panels;  $7^{\prime\prime}$  H  $\times$  19 $^{\prime\prime}$  W  $\times$  15 $^{\prime\prime}$  D.

#### **SPECTRO ACOUSTICS**

#### **500SR Stereo Power Amplifier**

#### 200SR Power Amplifier

Features 40-LED power output bar graph display; 110 W/ch continuous with 0.08% THD and IM dist.; dynamic range 3 dB at 200 W/ch; damping factor 150; slew rate 20  $V/\mu$ sec; frequency response 20-20,000 Hz  $\pm$ 0.1 dB; S/N 100 dB below full output (unweighted); input sensitivity 1 V; oak or walnut side panels; 7" H  $\times$  19" W  $\times$  12" D .\$400 200R. Same as 200SR without power ouput display \$375

#### STAX

#### **DA-80 Stereo Power Amplifier**

45 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.005% THD and 0.01% IM dist.; residual hum and noise -100 dB; input sensitivity 0.89 V; protective circuits for shorts, speakers, and thermal overload, class A amplifier; dc coupling..... \$1300

#### **DA-80M Mono Power Amplifier**

95 W continuous into 8 ohms over 20-20,000 Hz with 0.007% THD and 0.01% IM dist.; residual hum and noise -100 dB; input sensitivity 1.26 V; protective circuits for shorts, speakers, and thermal overload; class A amplifier; dc coupling..... \$1225

#### STUDER/REVOX

#### **A740 Stereo Power Amplifier**

100 W/ch into 8 ohms over 45-15,000 Hz with

#### ABOUT PRICES. . . .

With repeal of Fair Trade Laws, manufacturers are now providing "Suggested Retail" or "Fair Retail Value" figures for the guidance of their dealers and customers. Prices in this Directory are those provided by the manufacturers under these conditions.

#### **TECHNICS**

#### **SE-9060 Power Amplifier**

Stereo dc power amplifier with six power supplies and mono bridging. 70 W/ch sine wave continuous into 8 ohms over 20-20,000 Hz with 0.02% THD and IM dist., 180 W mono; frequency response 20-20,000 Hz  $\pm$ 0/ $\pm$ 0.1 dB; S/N (IHF A) 115 dB; damping factor 70; load impedance 4-16 ohms



#### **THRESHOLD**

#### STASIS i Power Amplifier

Mono power amplifier features constant current/ constant voltage operating system designed to elim-



inate semiconductor distortion; 72 ultra-high-speed output transistors; adjustable peak and average meter output display with sensitivity readings of peak/average 0 dB at 15 W, 8 ohms and peak/average 0 dB at 150 W, 8 ohms; LED amp on, error waveform, over temperature, and standby indicators.... \$3000

#### **4000 Stereo Power Amplifier**

Power amplifier with stereo amplifier/bridged mono amplifier modes; front-to-back/cascode class A circuitry incorporated into 4 MHz channel output stages with 6 kW dissipation reserve; 1-kW power transformer and dual feeding independent power supplies; includes peak and average output level indicators (+2 to -20 dB range) for each channel. 200 W/ch continuous from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 1.5-150,000 Hz; damping factor constant from 20-20,000 Hz; slew rate 50 V/µsec; S/N 106 dB unweighted; 6.94" H × 19" W × 17.25" D.. \$2160

#### 400A Stereo Power Amplifier

Cascode/class A circuitry power amplifier features thirty-two output transistors with 4.8 kW dissipation reserve; current limiting, thermal, fuse, and circuit breaker protected; 40-dB-range peak vs average output level indicators for each channel; grained and black anodized face plate with smooth black anodized chassis, heat sinks, and handles; 100 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; slew rate 40 V/ $\mu$ sec (max ); frequency response 1.5-150,000 Hz; damping factor 200; slew rate 50 V/ $\mu$ sec; S/N 103 dB (unweighted);  $6^{15}/16^{7}$  H  $\times$  19" W  $\times$  11" D.........\$1395

#### **CAS-2 Power Amplifier**

Features cascode design and bridged mono capability; 24 output devices with 3.6 kW dissipation reserve; dual power supplies and active current source

ing; 43-dB-range peak-reading LED indicators/ch. 100 W/ch continuous from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 1.5-100,000 Hz; damping factor 150 from 20-20,000 Hz; slew rate 40 V/µsec; S/N 103 dB unweighted......\$895

#### TOSHIBA

#### **SC-665 Power Amplifier**

Features OCL-dc circuitry; toroidal power transformer and two shunted V-type metallized film ca-



pacitors; dual peak power meters; two-speaker switching; switchable dc/5-Hz subsonic operation; -20-dB muting switch. 65 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; IHF power bandwidth 5-70,000 Hz; frequency response 0-80,000 Hz  $\pm 1$  dB; damping factor 60; S/N 117 dB (IHF A); input level/impedance 1 V/47k ohms; 3.8" H  $\times$  16.5" W  $\times$  13.9" D ........................\$350

#### M-15 Micro Power Amplifier

#### **SC-335 Stereo Power Amplifier**

Features audio muting switch (-20 dB); left/right power meters with power range selector switch; double-pair speaker drive selection; stereo headphone jack; heat radiator. 40 W/ch continuous into 8 ohms from 20-20,000 Hz at 0.1% THD and IM dist.; damping factor 25; frequency response 5-80,000 Hz  $\pm 1$  dB; power bandwidth 5-50,000 Hz, both channels driven, at 0.1% THD; S/N (IHF "A") 95 dB (main in); 3%" H  $\times$  16%" W  $\times$  9%12" D......\$180

#### YAMAHA

#### M-2 Power Amplifier

DC power amplifier features dual FET with cascode bootstrap circuit in input stage and three-stage emitter-follower complementary triple push-pull dc circuitry with linear-transfer bias circuit in output stage; high-capacity toroidal power transformer and two high-capacity electrolytic capacitors; power transistor, dc detection, and muting protection circuits; dual-LED peak level bar graph display; LED overload indicator; illuminated two-speaker switching; separate left and right input level controls and dc/ac input switch on rear panel. 240 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.005% THD; power bandwidth 10-100,000 Hz at half rated power; frequency response 10 (0 dB)-100,000 ( $-0.7 \pm 0.5$ dB) Hz (dc mode, 120 W, 8 ohms),  $10 (-1.5 \pm 0.5)$ dB)-100,000 ( $-0.7 \pm 0.5$  dB) Hz (ac mode, 120 W, 8 ohms); THD 0.003% from 10-20,000 Hz, 120 W into 8 ohms; IM dist. 0.002% at 60:7000 Hz ratio, 120 W into 8 ohms; damping factor 200 at 8 ohms, 20,000 Hz; input sensitivity/impedance 1. V/25k ohms; S/N 123 dB (IHF A);  $7^3/16''$  H  $\times$  171/6''W × 141/4" D ...... \$1200 M-4. Similar to M-2 without linear-transfer bias circuit and muting protection circuit; 120 W/ch under same conditions; THD 0.005% from 10-20,000 Hz, 60 W into 8 ohms; S/N 118 dB (IHF A); 53/4" H



#### **ACCUPHASE**

#### E202 Integrated Stereo Amplifier

100 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD (140 W/ch into 4 ohms, 50 W/ch into 16 ohms); hum and noise -94 dB (main amp), -80 dB (high level), -74 dB (low level); phono sensitivity variable over 2.5-5 mV; phono impedance 30,000, 47,000, 100,000 ohms (switchable); 6" H × 18" W × 14" D...... \$800 **AWC-2.** Walnut case......\$50

#### AIKO by TZL INTERNATIONAL

#### AU-80 Stereo Integrated Amplifier

Power amp: features dual power output meters; twospeaker switching; 40 W/ch continuous into 4 ohms with 0.2% HD at 1000 Hz. Preamp features bass and treble controls; low and high filters; loudness, mode, and tape/source monitor switches. 51/4" H × 17" W × 81/4" D......\$260

#### AIWA

#### AA-8700 Stereo Integrated Amplifier

Power amp: features dc circuitry; logarithmic compression peak power meters; two-speaker switching; 75 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 5-100,000 Hz  $\pm 0/-3$ dB; damping factor 60 at 8 ohms from 20-20,000 Hz. Preamp: features built-in moving-coil head amplifier; bass and treble controls with turnover frequency switches and six-LED turnover frequency/ filter setting displays; low and high filters; loudness and muting switches; balance control; two-way tape dubbing and monitoring with separate tape 3 play/ record control; mode switch; input selector with LEDs and phono capacitance selector; input sensitivity/impedance 200  $\mu$ V/10 ohms (phono MC), 150 mV/47k ohms (tuner, aux., tape, DIN); phono overload 280 mV (MM); RIAA deviation ±0.2 dB from 30-15,000 Hz; S/N (IHF A) 83 dB (MM), 70 dB (MC), 100 dB (tuner, aux., tape);  $6^{3}/_{14}$ " H  $\times$ 

#### AA-8300U Stereo Integrated Amplifier

Power amp: features dual peak power meters; twospeaker switching; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.1% THD and IM dist.; damping factor 45 at 8 ohms from 20-20,000 Hz. Preamp: features bass and treble controls; low and high filters; loudness and -15-dB muting; two-way tape dubbing and monitoring; balance/volume control; input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/ 47k ohms (aux., tape, and DIN); phono overload 130 mV; frequency response  $\pm 0.3$  dB from 30-15,000 Hz (phono RIAA), 10-50,000 Hz  $\pm 0.2$ dB (aux. and tape); S/N (IHF A) 80 dB (phono), 90 dB (aux. and tape);  $5^{15}/_{16}$ " H ×  $16^{9}/_{16}$ " W ×  $13^{m}$  D ... ......\$300

#### **AKAI**

#### AM-2850 Stereo Integrated Amplifier

Features dc circuitry; illuminated power meters;



separate low- and high-frequency filters; speaker

switching for three systems; audio mute; tone control defeat; separate bass, midrange, and treble controls; tape 1 and 2/dub 1-to-2 and 2-to-1/source tape monitor selector; phono 1/phono 2/tuner/aux. input selector; balance control; loudness switch; stereo/mono switch. 85 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD; silver panel with wood-grain vinyl cover; 6.7" H × 17.3" W × 16.9" D ...... \$475

#### AM-2650 Stereo integrated Amplifier

Features illuminated power meters; high- and lowfrequency filter switches; separate bass and treble controls; tape 1 and 2/dub 1-to-2 and 2-to-1/source tape monitor selector; phono 1/phono 2/tuner/aux. input selector; speaker switching for two systems; balance control; tone, audio mute, stereo/mono, and loudness switches; direct-coupled complementary OCL circuitry. Power amp: 65 W/ch continuous into 8 ohms from 20 20,000 Hz with 0.08% THD; THD 0.02%; power bandwidth 6-60,000 Hz at 8 ohms (IHF); S/N (IHF) 75 dB (phono), 95 dB (aux.); damping factor 30 at 1000 Hz, 8 ohms. Preamp: input sensitivity/impedance 1.3 mV/33k, 47k, 100k ohms (phono 1), 3 mV/47k ohms (phono 2), 150 mV/100k ohms (aux. and tuner); frequency response  $30-15,000 \text{ Hz } \pm 1 \text{ dB (phono RIAA)}$ ,  $10-60,000 \text{ Hz } \pm 1 \text{ dB (tuner, aux., tape monitor)};$ tone control  $\pm 9$  dB at 100 Hz (bass),  $\pm 9$  dB at 10,000 Hz (treble). 5.7" H  $\times$  17.3" W  $\times$  13.6" D ... ..... \$300

AM-2450. Similar to AM-2650 without audio mute, high- and low-frequency filter selectors, and tone switch; has phono/tuner/aux. input selector. Power amp: 45 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.1% THD ...... \$225

#### AM-2250 Stereo Integrated Amplifier

Features aux./tuner/phono input selector; twospeaker switching; separate bass and treble controls: loudness switch; stereo/mono mode selector; balance switch; dub 1-to-2 tape monitor switch: complementary OCL circuitry. Power amp: 25 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.2% THD; THD 0.03%; power bandwidth 10-40,000 Hz at 8 ohms (IHF); S/N (IHF) 75 dB (phono), 95 dB (aux.); damping factor 50 at 1000 Hz, 8 ohms. Preamp input sensitivity/impedance 3 mV/47k ohms (phono), 150 mV/100k ohms (aux. and tuner); frequency response 30-15,000 Hz ±1 dB (phono RIAA), 10-40,000 Hz + 0/-1 dB (tuner, aux., tape monitor); tone control ±8 dB at 100 Hz (bass),  $\pm 6$  dB at 10,000 Hz (treble). 5.1" H  $\times$  15" W × 8.7" D ...... \$150

#### DENON

#### PMA-850 Integrated Amplifier

All-stage, complementary-pushpull, dc-circuit integrated amplifier. Power amplifier: 110 W/ch continuous into 4 ohms at 1000 Hz with 0.05% THD, 85 W/ch continuous into 8 ohms from 20-20,000 Hz at 0.001% THD; IM dist. 0.02% max.; power bandwidth 5-100,000 Hz into 8 ohms; frequency response at 0.5 W output from 5-100,000 Hz +0/-1dB; input sensitivity/impedance 1 V rms/50k ohms ±10% from 20-20,000 Hz; output impedance 0.16 ohm max.; S/N 122 dB (IHF "A"). Preamplifier: input sensitivity/impedance 2.5 mV rms/50k ohms; rated output/impedance 1 V rms/50k ohms; RIAA deviation  $\pm 0.2$  dB from 20-20,000 Hz; max. phono input 200 mV rms at 1000 Hz; bass frequency response 100 Hz ±8 dB, treble 10,000 Hz ±8 dB. Features direct-coupled switch and toroidal core power transformer with separate left/right channel coils. 164 mm H × 434 mm W × 400 mm D..... \$800

#### PMA-630 Stereo Integrated Amplifier

Power amp: features purely complementary pushpull dc circuitry; heavy-duty power transformer with two block capacitors; two-speaker switching; 80 W/ ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.008% THD; IM dist. 0.005%; frequency response 0-100,000 Hz + 0/-1 dB; S/N 112 dB (IHF A); input sensitivity/ impedance 320 mV, 100k ohms. Preamp: features detented volume control; balance control; switcha-

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.....\$460

#### **PMA-501 Integrated Amplifier**

Three-stage, direct-coupled equalizer amplifier. Power amplifier: 65 W/ch continuous into 4 ohms from 20-20,000 Hz at 0.005% THD, 50 W/ch continuous into 8 ohms; IM dist. and HD at rated output max. 0.05%; power bandwidth 5-50,000 Hz both channels driven into 8 ohms; frequency response from 5-100,000 Hz -1 dB at 0.5 W output; input sensitivity/impedance 1 V rms/50k ohms ±10%; 0.16-ohm output impedance; S/N 116 dB (IHF "A"). Preamplifier: input sensitivity/impedance 2.5 mV rms/50k ohms (phono), 150 mV rms/ 85k ohms (tuner, aux, tape 1 & 2); RIAA deviation ±0.2 dB; max input 230 mV rms (phono); max. output/impedance 10 V rms/50k ohms; THD at rated output 0.008% max. at 1000 Hz; S/N 76 dB min. Tone control: frequency response 50 Hz  $\pm 10$ dB (bass), 20,000 Hz ±10 dB (treble); low filter rolloff 6 dB/octave at 20 Hz; stereo separation 75 dB from 20-1000 Hz (phono/speaker out), 60 dB at 20,000 Hz (phono/speaker out). Features PCC (phono crosstalk canceller) device, separate recording switch, three power transformers, and OCL and pure complementary circuitry; 5<sup>3</sup>/<sub>4</sub>" H × 16<sup>15</sup>/<sub>14</sub>" W × 12<sup>3</sup>/<sub>16</sub>" D ...... \$410

#### **FISHER**

#### CA2420 Integrated Amplifier/Equalizer

Power amp section: features dc circuitry, dual power meters, and two-speaker switching; 80 W/ch



continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and 1M dist.; damping factor 50. Preamp/equalizer: features subsonic filter; EQ defeat switch; mode and loudness switches; two-way tape dubbing and monitoring; balance control; input selector; phono capacitance selector; input sensitivity/impedance 2.5 mV/50k ohms (MM),  $60~\mu$ V/22 ohms (MC), 150~mV/100k ohms (tuner, aux., tape); phono overload 230 mV (MM), 6~mV (MC); frequency response  $\pm 0.5~d$ B (phono RIAA), 20-20,000 Hz  $\pm 0.5~d$ B (high level); S/N (1HF A) 80 dB (MM), 65~dB (MC), 100~dB (tuner, aux., tape); five-band graphic equalizer with center frequencies set at 50, 250, 1000, 4500, and 15,000~Hz,  $\pm 10~d$ B boost or cut; subsonic

#### **CA2320 Stereo Integrated Amplifier**

#### CA2220 Integrated Amplifier/Equalizer

Power amp: features dc circuitry, dual power meters, and two-speaker switching; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist; damping factor 50. Preamp/equalizer: features subsonic filter; EQ defeat; mode and loudness switches; twoway tape dubbing and monitoring; input selector; input sensitivity/impedance 2.5 mV/50k ohms (phono), 150 mV/100k ohms (tuner, aux., tape); phono overload 230 mV; frequency response ±0.5 dB (phono RIAA), 20-20,000 Hz ±0.5 dB (aux.); S/N (IHF A) 80 dB (phono), 90 dB (tuner, aux., and tape); five-band graphic equalizer with center frequencies set at 50, 250, 1000, 4500, and 15,000 Hz,  $\pm 10$  dB boost or cut;  $5^{1}$ /4" H  $\times$   $17^{1}$ /3" W  $\times$  13" D.....\$400 CA2120. Similar to CA2220 minus subsonic filter; 35 W/ch continuous under same conditions... \$330

#### HARMAN/KARDON

#### hk505 integrated Amplifier

Power amplifier: dc-coupled with dual power supplies: 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.03% THD; THD 0.01% (1000 Hz at rated output); IM dist. 0.05% at rated output; frequency response 2-150,000 Hz ±0.5 dB; damping factor more than 50 at 8 ohms; hum and noise - 100 dB. Preamplifier: four-stage, low-noise preamplifier features separate 21-step bass and treble controls (±10 dB) with bass hinge set at 150 or 500 Hz and treble hinge set at 2500 or 6000 Hz; tone defeat switch; subsonic and high-cut filters; electronic circuit protection; two-position bass turnover and treble rolloff; two-way tape duplication with LED tape monitor indicators; two auxiliary inputs; phono capacitance switch; speaker selector switch; sensitivity 2.0 mV (phono), 120 mV (high level); phono overload greater than 150 mV; phono equalization ±0.5 dB; S/N ("A") 85 dB (phono), 90 dB (high level).. \$399 hk503. Similar to hk505 except 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04% THD; frequency response 3-100,000 Hz ±0.5 dB; damping factor greater than 30 at 8 ohms; hum and noise -95 dB. Features similar, but single power supply, center detent bass and treble controls (±10 dB), no electronic circuit protection, no phono capacitance switch, and three-position tape monitor with simultaneous two tape deck recording and tape copying functions ......\$279

#### HITACHI

#### **HA-7700 Stereo Integrated Amplifier**

Power amp section: features MOS FETs and dc circuitry; dual power supplies; two-speaker switching; 65 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; 1M dist. 0.008%; frequency response 0-100,000 Hz +0/-1 dB (dc); input sensitivity/impedance 1 V/ 47k ohms; S/N 115 dB (IHF A); damping factor 60

at 1000 Hz, 8 ohms. Preamp section: features bass and treble controls with tone defeat; two-way tape monitoring and dubbing; -16-dB muting switch; low filter; balance control; input selector with separate cartridge load impedance selector; mode switch; input sensitivity/impedance 2.5 mV/100, 22,000, 47,000, and 100,000 ohms (phono MM),  $250 \,\mu\text{V}/100 \,\text{ohms}$  (MC), 150 mV/47k ohms (tuner, aux., tape); phono overload 300 mV (MM), 30 mV (MC); frequency response 20-20,000 Hz ±0.2 dB (phono RIAA), 10-100,000 Hz +0/-2.5 dB (tuner and aux.); S/N (IHF A) 86 dB (phono MM), 68 dB (MC), 100 dB (tuner, aux., tape); HD 0.002% (MM), 0.01% (MC), 0.005% (tuner, aux., tape); speaker, tone, mode, and phono impedance controls on front panel hidden behind hinged door; 61/2" H × 17'/<sub>6</sub>" W × 15" D......\$600

#### **HA-5700 Stereo Integrated Amplifier**

Power amp: features MOS FETs; two-transformer power supply circuitry; dual LED power logarithmic meter display with ×0.1 and ×1 range selector: two-speaker switching; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; IM dist. 0.008%; power bandwidth 5-60,000 Hz; damping factor 50 at 1000 Hz, 8 ohms. Preamp: features built-in moving-coil head amp; bass and treble controls with tone defeat; subsonic filter; loudness and mode switches; balance control; two-way tape dubbing and monitoring; input selector with LEDs; input sensitivity/impedance 2.5 mV/47k ohms (MM), 0.25 mV/10 ohms (MC), 150 mV/47k ohms (tuner, aux., tape); phono overload 200 mV (MM), 20 mV (MC); frequency response 20-20,000 Hz +0.5/-4.5 dB (phono), 10-100,000 Hz + 0.5/-4.5 dB (tuner and aux.);S/N (IHF A) 82 dB (MM), 62 dB (MC), 100 dB (tuner and aux.); HD 0.005% (MM), 0.02% (MC, tuner, aux., tape);  $4^{1}/4^{n}$  H  $\times$  17 $^{1}/6^{n}$  W  $\times$  15" D. \$430

#### **HA-4500 Stereo Integrated Amplifier**

Power amp:, features pure complementary OCL output circuitry; dual LED power logarithmic meter display; two-speaker switching; 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD; power bandwidth 10-50,000 Hz; damping factor 35. Preamp: features bass and treble controls; balance control; subsonic filter; loudness and mode selectors; two-way tape dubbing and monitoring; input selector with LEDs; input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/33k ohms (tuner and tape); phono overload 250 mV; S/N (IHF A) 75 dB (phono), 90 dB (tuner and tape); frequency response ±0.3 dB (phono RIAA), 10-40,000 Hz + 0/-1 dB (tuner and tape); 4³/₀" H × 17" W × 10³/₀" D ......\$250 HA-3500. Similar to HA-4500 minus tape dubbing facility, aux. input, and logarithmic meters; has two-deck monitoring capability and dual power meters; 30 W/ch continuous under same conditions; damping factor 30; phono overload 200 mV; tuner and tape frequency response 10-40,000 Hz +0.5/ -1.5 dB ......\$200

#### **HA 330 Integrated Amplifier**

OCL integrated amplifier. 40 W/ch, both channels driven into 8 ohms from 20-20,000 Hz at 0.3% THD and IM dist.; IHF power bandwidth 10-50,000 Hz; frequency response 20-20,000 Hz ±1 dB (tape, aux.); bass and treble tone controls ±8 dB range. Features twin power level meters; low (12 dB/octave) filter; two-tape deck capability through switch control; 41-click-stop volume control. \$220

#### JVC

#### **A-M1 Micro integrated Amplifier**

Power amp: features ICL dc circuitry; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; frequency response 0-70,000 Hz +0/-1 dB; damping factor 30. Preamp: features input selector buttons with LEDs; volume control in four steps; source and tape monitor buttons with LEDs. Input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/47k ohms

(tuner, aux., tape); RIAA phono equalization  $\pm 0.3$  dB from 20-20,000 Hz; phono overload 200 mV rms; S/N (IHF A) 82 dB (phono),\*105 dB (tuner, aux., tape);  $3^{11}/_{16}$ " H  $\times$   $9^{1}/_{16}$ " W  $\times$   $10^{3}/_{16}$ " D.... \$600

JA-S77 Stereo Integrated Amplifier

All-stage dc power amp, phono equalizer, and tone control circuits. Power amplifier: 65 W/ch continu-



ous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD, 90 W/ch continuous into 4 ohms at 1000 Hz, 0.02% THD; THD 0.005% at 1000 Hz, 65 W output; IM dist. 0.01% at 65 W out; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamplifier: input sensitivity/impedance 2.5 mV/33k, 47k, 100k ohms (phono 1, 2), 200 mV/50k ohms (tuner, aux., tape 1, 2); max. input 280 mV rms (phono); S/N (IHF "A") 81 dB (phono), 105 dB (tuner, aux, tape); RIAA phono equalization ±0.2 dB; frequency response 3-100,000 Hz +0/-1 dB; subsonic filter rolloff -6 dB/octave at 18 Hz; -20 dB muting level. Features two gold-plated phono terminal pairs, pre-out/main-in switch, and twin power me-

JA-S55 Stereo Integrated Amplifier

All-stage, dc power amplifier, phono equalizer, and tone control circuits. Power amplifier: 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD, 70 W/ch continuous into 4 ohms at 1000 Hz, 0.05% THD; THD 0.005% at 60 W output; IM dist. 0.01% at 60 W output; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms (phono), 200 mV/50k ohms (tuner, aux., tape 1, 2); max. input 230 mV rms (phono); S/N (IHF "A") 81 dB (phono), 105 dB (tuner, aux, and tape); RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz +0/-1 dB; subsonic filter rolloff -6 dB/octave at 18 Hz; muting -20 dB. Features separate power supplies, dB-calibrated attenuator volume control, and twin power meters; 6" H  $\times$  163/4" W  $\times$  133/6" D . ......\$340

JA-S44 Stereo Integrated Amplifier

DC power amplifier with SEA stereo graphic equalizer. Power amplifier: 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD, 70 W continuous into 4 ohms at 1000 Hz with 0.05% THD; THD 0.005% at 45 W output; IM dist. 0.01% at 45 W output; damping factor 30 from 20-20,000 Hz; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms (phono), 160 mV/50k ohms (tuner, aux., tape 1, 2); max. input 200 mV rms; S/N (IHF "A") 80 dB (phono), 100 dB (tuner, aux, tape); RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz + 0/-2 dB; subsonic filter rolloff -6 dB/octave at 18 Hz. Features SEA REC switch and twin power meters. 6" H  $\times$  16<sup>3</sup>/<sub>4</sub>" W  $\times$  12<sup>5</sup>/<sub>6</sub>" D. \$340

JA-S22 Stereo Integrated Amplifier

DC power amplifier. Power amplifier: 45 W/ch continuous, both channels driven into 8 ohms from

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Write directly to the manufacturer or distributor. A list of names and addresses starts on page 9.

20-20,000 Hz at 0.02% THD, 50 W/ch continuous into 4 ohms at 1000 Hz, 0.05% THD; THD and IM dist. 0.01% at 40 W output; damping factor 30 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 +2). Preamplifier: input sensitivity/impedance 2.5 mV/ 47k ohms (phono), 160 mV/50k ohms (tuner, aux, tape 1, 2); max. input 200 mV rms (phono); S/N (IHF "A") 80 dB (phono), 100 dB (tuner, aux, tape); RIAA phono equalization  $\pm 0.3$  dB; frequency response 5-100,000 Hz  $\pm 0.000$  Hz  $\pm 0.000$  Hz subsonic filter rolloff  $\pm 0.000$  GB/octave at 18 Hz. Features twin power meters, class-A phono equalizer, and front-panel Tape-2 terminals. 6" H  $\times 16^{3}$ /4" W  $\times 13^{3}$ /6" D. \$240

A-S5 Stereo Integrated Amplifier

Power amp section: features complementary OCL circuitry; two-speaker switching; 30 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.06% THD and IM dist.; damping factor 50 from 20-20,000 Hz, 8 ohms. Preamp: features bass and treble controls; two-deck dubbing; input selector; loudness switch; input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/40k ohms (tuner, aux., and tape); phono overload 150 mV rms; frequency response ±0.5 dB (phono RIAA), 20-40,000 Hz ±1 dB; S/N (IHF A) 75 dB (phono), 95 dB (tuner, aux., tape)  $5^{7/6}$ " H  $\times$ 16'/<sub>3</sub>" W × 10'/<sub>16</sub>" D...... \$180 A-\$3. Similar to A-\$5 except 20 W/ch with 0.08% THD and IM dist.; input sensitivity/impedance 150 mV/45k ohms (tuner), 150 mV/50k ohms (tape); phono overload 120 mV; aux. frequency response  $20-40,000 \text{ Hz} + 1/-2 \text{ dB}; 3^{1/2}'' \text{ H} \times 16^{9/16}'' \text{ W} \times$ 11<sup>1</sup>/<sub>32</sub>" D ...... \$150

JA-S11G Stereo Integrated Amplifier

#### **KENWOOD**

KA-907 DC Integrated Amplifier

Power amp: features dc circuitry, dc coupled selector with LED, full complementary circuit design,



and dual power supplies; LED power safety indicator; output 150 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD; IM dist. 0.0045%; damping factor 100 from 0-20,000 Hz; slew rate ±230 V/µsec; rise time 0.8  $\mu$ sec; frequency response 0-400,000 Hz +0/-3 dB (dc coupled on), 1-400,000 Hz + 0/-3 dB (dc coupled off). Preamp: features built-in low-noise moving-coil head amp and super-low-noise movingmagnet phono equalizer amp; bass and treble tone controls with 150/400 and 3000/6000 Hz turnover frequency selectors with tone defeat; -20 dB attenuator: 18-Hz subsonic and 8000-Hz high filters; two-way speaker switching; two-deck tape dubbing and monitoring; loudness level and 30- and 100-Hz frequency controls; input selector with separate phono selections; mode selector; phono frequency response ±0.2 dB from 20-20,000 Hz (RIAA); input sensitivity/impedance 2.5 mV/33k, 47k, and 100k ohms (phono 1 MM), 2.5 mV/47k ohms (phono 2 MM), 0 1 mV/100 ohms (phono 1 MC), 150 mV/50k ohms (tuner, aux., tape A and B); S/N (IHF A) 90 dB (phono 1 and 2 MM), 70 dB (phono 1

**KA-801 DC Integrated Amplifier** 

Power amp: features dc circuitry with dc coupled switch, dual peak power meters, and dual power supplies; 110 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.015% THD; IM dist. 0.003%; damping factor 100 from 0-20,000 Hz; slew rate  $\pm 150 \text{ V/}\mu\text{sec}$ ; rise time 0.8 µsec; frequency response 0-400,000 Hz -3 dB (dc coupled on), 18-400,000 Hz -3 dB (dc coupled off). Preamp: features low-noise phono equalizer amp; bass and treble controls with tone defeat; twoway speaker switching; balance control; -20 dB attenuator; loudness switch; input selector; subsonic filter (functions as dc coupled switch) two-way tape dubbing and tape B and source monitoring; phono frequency response ±0.2 dB from 20-20,000 Hz (RIAA); input sensitivity/impedance 2.5 mV/50k ohms (phono), 200 mV/50k ohms (tuner, aux., and tape A and B); S/N (IHF A) 90 dB (phono), 105 dB (tuner, tape, and aux.); max. phono input 230 mV rms;  $6^{6}/_{32}$ " H  $\times$   $17^{10}/_{32}$ " W  $\times$ 16<sup>6</sup>/<sub>32</sub>" D ......\$699 KA-701. Similar to KA-801 without peak power meters; has turnover frequency controls for bass and treble with defeat and 8000-Hz high filter switch; power output 80 W/ch continuous with 0.02% THD; slew rate  $\pm 120 \text{ V/}\mu\text{sec}$ ; rise time 0.9  $\mu\text{sec}$ ; S/ N 89 dB (phono), 110 dB (tuner, tape, aux.); max. phono input 220 mV rms......\$499 KA-601. Similar to KA-701 minus turnover frequency selectors and high filter switch; power output 60 W/ch continuous; IM dist. 0.004%; slew rate ±110 \(\frac{1}{2}\)\(\text{usec: S/N 87 dB (phono), 105 dB}\) (tuner, aux., tape); phono RIAA frequency response ±0.3 dB from 20-20,000 Hz......\$399

**KA-305 Stereo Integrated Amplifier** 

Power amplifier: 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD; IM dist. 0.004%; damping factor 40; frequency response 3-100,000 Hz - 3 dB. Preamp: features bass and treble controls with bypass tone control, loudness and balance, mic mixing with mic level control, and input selector; phono frequency response ±0.4 dB from 30-15,000 Hz (RIAA); input sensitivity/impedance 2.5 mV/50k ohms (phono and mic), 150 mV/30k ohms (tuner, aux., and tape); S/N (IHF A) 77 dB (phono), 105 dB (tuner, aux., tape), 73 dB (mic); max. phono input 260 mV rms;  $5^{15/32}$ " H ×  $15^{3/4}$ " W ×  $11^{25/32}$ " D.\$199 KA-405. Similar to KA-305 except dc amplifier with peak power meters, two-way tape dubbing with source monitor switch, and LED input selector display; 55 W/ch with 0.05% THD; IM dist. 0.009%; frequency response 2-250,000 Hz +0/-3 dB; phono S/N 83 dB; phono overload 210 mV .... \$299

KA-3700 Integrated Amplifier

Power amplifier: 20 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD; IM dist. 0.04%; frequency response 20-20,000 Hz  $\pm 1$  dB. Preamp: has one-way tape dubbing; sensitivity 2.5 mV (phono), 150 mV (high level); S/N (A weighted) 72 dB (phono), 100 dB (aux.); frequency response 15-20,000 Hz  $\pm 0.4$  dB (phono RIAA); phono overload 150 mV;  $5^{1}/2^{m}$  H  $\times$  15" W  $\times$  11'/2" D..................................\$159

#### **Audio Purist Group**

600 Stereo Integrated Amplifier



#### LUX

#### L-11 Integrated Amplifier

#### L-10 Integrated Amplifier

#### L-5 integrated Amplifier

Features bass and treble controls ( $\pm 12$ -dB range); headphone jack; tape dubbing circuit; tape monitor circuit; high- and low-cut filters; subsonic filter; speaker protection circuit; ac power outlet. Power amplifier: 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.03% THD and IM dist.; frequency response 5-100,000 Hz  $\pm 0/-1$  dB; input sensitivity 1.3 V; damping factor 80. Preamplifier: input sensitivity 2.5 mV (phono 1 and 2), 150 mV (aux., tuner, and monitor 1 and 2); S/N (IHF "A") 92 dB (phono); frequency response 20-20,000 Hz  $\pm 0.5$  dB (phono), 10-100,000 Hz  $\pm 0.5$  dB (tuner, aux., monitor 1 and 2).....\$595

#### L-3 Integrated Amplifier

Features bass and treble tone controls ( $\pm 11\text{-dB}$  range); headphone jack; tape dubbing circuit; tape monitor circuit; ac power outlet. Power amplifier: 35 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.05% THD; IM dist. 0.08%; frequency response 15-60,000 Hz -1 dB; damping factor 60. Preamplifier: input sensitivity 2.5 mV (phono), 150 mV (aux., tuner, monitor 1 and 2); S/N (IHF "A") 87 dBf (phono); frequency response 30-18,000 Hz  $\pm 0.5$  dB (phono), 15-60,000 Hz -1 dB (tuner, aux., monitor 1 and 2).......\$395

#### **Laboratory Reference Series**

#### **Luxman 5L15 Integrated Amplifier**

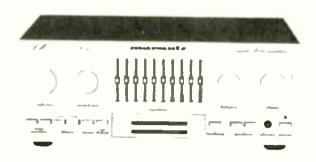
Stereo integrated amplifier with direct-coupled dc preamps and power amps and class AB output stages; connections for tuner, two tapes, two auxiliary sources, and phono. Features phono subsonic filter, two-level muting switch, and illuminated power meters. Power amplifier: 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 0-100,000 Hz ±1.0 dB; S/N greater than 100 dB (IHF "A"); damping factor 80. Preamplifier: input sensitivity 3 mV (phono), 300 mV (aux., tape 1/2). Other features include dc offset warning light, electrostatic speaker switch, outputs for LED peak indicator, and speaker-amplifier

protection dc sensors. Metal enclosure;  $16'' \text{ H} \times 17'/_{10}'' \text{ W} \times 5^4/_5'' \text{ D}$ ....\$995

#### MARANTZ

#### **PM700 Stereo Integrated Amplifier**

Power amp: features dc circuitry; dual LED power output logarithmic displays; two-speaker switching;



70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.025% THD and IM dist.; damping factor 60 at 20 Hz. Preamp: features built-in moving-coil cartridge head amplifier; built-in five-band stereo graphic equalizer with center frequencies set at 50, 200, 800, 3200, 12,800 Hz, ±12 dB boost or cut and EQ defeat; 6 dB/ octave low (20 Hz) and high (9000 Hz) filters; mono switch; loudness switch; balance control; record mode selector with two-way tape dubbing and twodeck tape monitoring; input selector; input sensitivity/impedance 2.8 mV/47k ohms (phono MM), 0.2 mV/40 ohms (phono MC), 150 mV/30k ohms (high level); phono overload 220 mV (MM), 16 mV (MC); S/N (A weighted) 92 dB (phono MM), 98 dB (high level); frequency response ±0.2 dB from 20-20,000 Hz (phono), 10-70,000 Hz  $\pm 1$  dB (high level); dynamic range 123 dB (phono MM), 112 dB (MC);  $5^{3}/4^{n}$  H ×  $16^{3}/8^{n}$  W ×  $13^{n}$  D ..... \$420 PM500. Similar to PM700 minus built-in movingcoil head amp, record out selector, and high filter; has single five-band graphic equalizer with same center frequencies; 50 W/ch continuous, under same conditions; phono RIAA deviation ±0.3 dB; phono S/N 90 dB (A weighted); phono dynamic range 117 dB......\$330 PM300. Similar to PM500 minus mono switch, EQ defeat, and two-way tape dubbing and monitoring; has tape/source monitor switch, power level meters, and bass, midrange, and treble slide controls; 30 W/ch continuous with 0.04% THD and IM dist.; phono overload 130 mV; phono RIAA deviation ±0.5 dB; phono S/N 87 dB (A weighted); phono dynamic range 109 dB; high level frequency response 15-50,000 Hz  $\pm 1$  dB;  $5^{3}/_{4}"$  H  $\times$   $16^{3}/_{6}"$  W  $\times$ 9°/1<sub>6</sub>" D ......\$225

#### NAD (USA)

#### 3080 Stereo Integrated Amplifier

Power amp: features eight high-current output transistors; separate filtered and regulated power sup-



plies; 2-ohm load impedances; dual power output meter with 8/80 W meter switch; main/remote speaker switching; 90 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.; slew rate 40 V/µsec; damping factor 120 at 8 ohms, 50 Hz; S/N 104 dB (A weighted); frequency response 5-50,000 Hz +0/-3 dB; input sensitivity/impedance 1.2 V/10k ohms. Preamp: features bass and treble controls with switchable turnover frequency selectors and tone defeat; infrasonic and high filters; two-way tape dubbing and monitoring; loudness, mono, and

muting switches; mic level control with jack; input selector; input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/50k ohms (high level); phono overload 200 mV; frequency response ±0.3 dB (phono RIAA), 20-20,000 Hz ±0.5 dB (high level); THD 0.01%; S/N (A weighted) 82 dB at 10 mV (phono), 95 dB (mute off, high level). 5.5" H  $\times$ 19.3" W × 14.2" D......\$485 3060. Similar to 3080 without meter switching and mic level control; 60 W/ch continuous under same conditions; slew rate 30 V/µsec; damping factor 100; main amp input sensitivity/impedance 1.0 V/ 33k ohms; main amp S/N (A weighted) 103 dB; high-level input impedance 18k ohms; 5.5" H x 17.7" W × 14.2" D......\$410 3045. Similar to 3060 minus bass and treble turnover frequency selectors and tone defeat; 45 W/ch continuous with 0.05% THD and IM dist.; slew rate 20 V/µsec; damping factor 75; main amp input sensitivity 0.85 V; S/N (A weighted) 101 dB (main amp), 92 dB (high level) ...... \$315 3030. Similar to 3045 without two-way tape dubbing; 30 W/ch with 0.09% THD; slew rate 15 V/ μsec; damping factor 50; phono overload 190 mV; THD 0.02%; S/N 80 dB at 10 mV (phono); highlevel input impedance 50k ohms; 5.5" H × 15.4" W × 10.6" D ...... \$230

#### 3020 Stereo Integrated Amplifier

#### **NAIM by AUDIOPHILE SYSTEMS**

#### NAP 110 Power/NAC 42 Pre- Amplifiers

Separate units sold as pair. Power amp: 40 W continuous into 8 ohms from 20-20,000 Hz with



#### NIKKO

#### NA-890 Stereo Integrated Amplifier

Power amp: features fully complementary OCL circuitry; dual power meters with 5 W and 100 W meter range control; two-way speaker switching; 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04% THD and IM dist.; damping factor 60 at 8 ohms, 1000 Hz. Preamp: features discrete transistors in phono section; bass and treble controls with tone defeat; -20-dB audio muting and loudness switches; subsonic and high filter switches; two-way tape monitoring and dubbing; input selector; input sensitivity/impedance 2.3 mV/47k ohms (phono), 150 mV/50k ohms (aux., tuner, tape); frequency response ±0.2 dB from 30-15,000 Hz (phono RIAA), 20-20,000 Hz

 $\pm 0.2$  dB (aux. and tape); S/N (IHF A) 85 dB

#### NA-790 Stereo Integrated Amplifier

#### **ONKYO**

#### A-7090 Stereo Integrated Amplifier

Power amp: features servo-controlled circuitry (servo loop functions as phase inversion and bass



amplification as well as negative feedback circuitry); all-stage direct-coupled OCL discrete circuitry; dual power supplies; electronic amp and speaker protection relays; dual eight-LED peak power bar display with center power LED and X0.01, X0.1, and X1 pushbutton range selector; 110 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.018% THD and IM dist.; frequency response 5-80,000 Hz  $\pm 1$  dB; S/N 110 dB (IHF A); damping factor 50 into 8 ohms. Preamp: features built-in moving-coil head amp; bass and treble controls with separate turnover frequency controls and tone defeat; loudness and -20-dB muting; two-way speaker switching with A, B, and C speaker terminals; two-way tape dubbing and monitoring; low and high filter switch; mode selector; input sensitivity/impedance 2.5 mV/50k ohms (phono 1 and 2), 250  $\mu$ V/40 ohms (phono MC), 150 mV/50k ohms (tuner, aux., tape); THD and IM dist. 0.01%; frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-50,000 Hz +0/ -1 dB (aux.); S/N (IHF A) 78 dB (phono MM), 68 dB (phono MC), 90 dB (aux.); phono overload 250 mV rms at 1000 Hz. Power and preamp separable through EPS front-panel switch;  $6^{1/6}$ " H  $\times$   $16^{1/2}$ " W 

#### A-7070 Stereo Integrated Amplifier

Power amp: features servo-controlled circuitry; all-stage direct-coupled OCL circuitry; dual power supplies; electronic amp and speaker protector relays; dual eight-LED peak power bar display with center power LED and X0.1, X1 range selector; 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 15-50,000 Hz  $\pm 1$  dB; damping factor 50 into 8 ohms. Preamp: features bass and treble controls with separate tone defeat switches; low and high filters; mode, loudness, and -20-dB muting; two-way speaker switching; two-way tape monitoring and dubbing; input selector; input sensitivity/impedance 2.5 mV/50k ohms (phono 1- and

#### A-7040 Stereo Integrated Amplifier

Power amp: features servo-controlled circuitry; allstage direct-coupled OCL circuitry; dual power supplies; speaker protection; dual five-LED peak power bar display with center power LED and X0.1, X1 range selector; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.026% THD and IM dist.; frequency response 15-50,000 Hz  $\pm 1$  dB; damping factor 45 into 8 ohms. Preamp: features bass and treble controls; balance control; high cut filter; mode and loudness switches; two-way speaker switching; two tape monitor switches with one-way dubbing; input selector; input sensitivity/impedance 2.5 mV/50k ohms (phono 1 and 2), 150 mV/50k ohms (tuner and tape); phono frequency response ±0.5 dB from 20-20,000 Hz (RIAA); S/N (IHF A) 80 dB (phono), 90 dB (tuner); phono overload 170 mV rms at 1000 

#### **OPTONICA**

#### SM-7305 Stereo Integrated Amplifier

Power amp: features dual-LED power output bar graph display; two-speaker switching; two-color LED protection indicator; 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD. Preamp: features bass and treble controls with variable tone defeat; balance control; 15 and 30 Hz subsonic and 8000 and 15,000 Hz high filter buttons; mono mode; two-way tape dubbing and monitoring; loudness and 20-dB muting; input selector with LEDs. S/N 80 dB (phono, low), 90 dB (phono, high), 100 dB (aux.); RIAA deviation ±0.3 dB from 20-20,000 Hz; phono overload 300 mV; ebony faceplate; 2.9" H × 16.9" W × 15" D.

#### SM-4305 Stereo Integrated Amplifier

Power amp: has two-way speaker switching; 40 W/ ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features bass and treble controls; subsonic and high filter buttons; two-way tape dubbing and monitoring; mono mode switch; loudness and 20-dB muting; balance control; input selector with LEDs; S/N 75 dB (phono, low), 85 dB (phono, high), 90 dB (aux.); phono RIAA deviation ±0.4 dB from 20-20,000 Hz; phono overload 250 mV; ebony faceplate; 2.9" H × 16.9" W × 15" D.............\$300

#### SM-3201 Integrated Amplifier

40 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.19% THD; two output meters; two-way tape dubbing; mode selector switch; tone controls; negative feedback tone control amp; -20 dB audio muting; loudness contour; high and low filters; 41-position detent volume control; speaker selector A and A+B; headphone jack \$260 \$M-3205. Same as SM-3201, except in ebony finish \$260

#### **JC PENNEY**

#### 3865 Integrated Amplifier

Features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; mode selector with speaker reverse; volume, balance, tone defeat, and loudness controls; switchable speaker selector; headphone jack; dual power supplies. 65 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD; IM dist. 0.02%; RIAA phono deviation ±0.5 dB from 20-20,000 Hz; S/N 86 dB; phono overload 360 mV; bass and treble control range ±9 dB.\$400

#### 3845 Integrated Amplifier

Features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; switchable speaker selector; volume, balance, and loudness controls; mode selector; headphone jack.

45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD and IM dist.; S/N 75 dB; phono overload 170 mV; RIAA deviation ±0.3 dB from 20-20,000 Hz; bass and treble control range ±9 dB ......\$240

#### 3835 Integrated Amplifler

Features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; volume, balance, and loudness controls; headphone jack. 35 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD and IM dist.; S/N 75 dB; phono overload 170 mV; bass and treble tone control range ±8 dB; RIAA deviation ±0.5 dB from 20-20,000 Hz ........\$200

#### **PHILIPS**

#### AH388 Integrated Amplifier

Power amplifier: 80 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD; IM dist. 0.05% at



40 W. Preamplifier: input sensitivity 2.5 mV (phono 1, 2), 200 mV (aux., tuner, tape), 2.0 mV (mic); S/N 70 dB (phono 1, 2), 65 dB (mic), 85 dB (aux. and tuner); dist. 0.02% (equalizer). Features step detented volume control; center detented balance control; separate bass ( $\pm 10$  dB) and treble ( $\pm 12$ dB) controls high and low filters (-6 dB/octave); tuner, phone 1 and 2, and aux. inputs; tape monitor; switchable six-speaker capability; headphone jack, mic jack and mixing; audio muting; illuminated power output meters; two ac receptacles.  $5\frac{1}{2}$ " H × 19" W × 14" D ......\$470 **AH3881.** Black chassis......\$490 AH386. Similar to AH 388 except 60 W continuous; S/N 65 dB (phono 1, 2, and mic); bass and treble controls ±10 dB; switchable four-speaker capability ...... \$360 AH3861. Black chassis......\$380 AH384. Similar to AH386 except 40 W continuous; bass ( $\pm 10 \text{ dB}$ ) and treble ( $\pm 12 \text{ dB}$ ) controls; tape monitoring and dubbing; no mic jack and mixing... .....\$330 **AH3841.** Black chassis......\$350

#### **PIONEER**

#### SA-9800 Stereo Integrated Amplifier

Power amp section: features dual-LED peak power bar graph display with dim/bright meter switch; two-



1980 EDITION 75



#### **SA-8800 Stereo Integrated Amplifier**

Power amp: features dc circuitry in hybrid Class A/B configuration; non-switching output; dual power supplies; four ring emitter transistors/ch; dual-LED peak power bar graph display; two-speaker switching; 80 W/ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.005% THD and 0.002% IM dist.; frequency response 5-200,000 Hz +0/-2 dB; damping factor 55 from 20-20,000 Hz, 8 ohms; hum and noise -118 dB (short-circuited A); input sensitivity/impedance 1 V/50k ohms. Preamp: features dc flat amp and low-noise phono equalizer; bass and treble controls with tone defeat; subsonic and high filters; balance and mode switches; loudness and -20-dB muting; two-way tape dubbing and monitoring; input selector with two cartridge load capacitance selectors; input sensitivity/impedance 2.5 mV/50k ohms (phono 1 and 2), 150 mV/50k ohms (tuner, aux., tape); phono overload 250 mV; THD 0.006% from 10-50,000 Hz; frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 5-100,000 Hz +0/-1 dB (tuner, aux., tape); S/N (A, short-circuited) 90 dB (phono). 110 dB (tuner, aux., tape). Walnut-grain vinyl cabinet: 61/6" H × 1711/16" W × 163/4" D...... \$A-7800. Similar to SA-8800 minus high filter and phono 2 input with cartridge capacitance selectors; 65 W/ch continuous with 0.009% THD and 0.003% IM dist.; phono overload 200 mV; phono S/N 87 dB (short-circuited, A); 61/6" H × 117/16" W × 14<sup>13</sup>/16" D ......\$450 SA-6800. Similar to SA-7800 minus non-switching output, muting, and mode switches; one-way tape dubbing; 45 W/ch continuous with 0.03% THD and IM dist.; damping factor 30 from 20-20,000 Hz; phono overload 180 mV; frequency response ±0.3 dB from 30-15,000 Hz (phono RIAA), 10-50,000 Hz +0/-1.5 dB (tuner, aux., tape); S/N 78 dB (phono), 100 dB (tuner, aux., tape);  $5^{18}/_{16}$  H  $\times$ 173/4" W × 1011/14" D..... SA-5800. Similar to SA-6800 minus dc power circuitry and tone defeat; 25 W/ch under same conditions: phono input sensitivity/impedance 2.5 mV/ 47k ohms; phono overload 140 mV; frequency response ±0.5 dB from 30-15,000 Hz (phono RIAA), 20-40,000 Hz ±2 dB (tuner, aux., tape); S/N 76 dB (phono), 98 dB (tuner, aux., tape)........... \$200

#### **ROGERS by REFERENCE**

#### A75 Series 2 Stereo Integrated Amplifier

Power amp: features dc coupled circuitry; 45 W/ch continuous sine wave into 8 ohms from 30-30,000 Hz: THD 0.08% at 1000 Hz up to 40 W, 8-ohm load; damping factor 30 at 50 Hz, 10 W into 8 ohms. Preamp: features bass and treble controls; high- and low-pass filters; two-way tape dubbing and monitoring; input selector with LEDs; input sensitivity/impedance 2.7, 4, 63, 90 mV/47k ohms (phono), 180 mV/100k ohms (tuner, tape, aux.); frequency response  $\pm 1$  dB (phono RIAA), 25-20,000 Hz  $\pm 1$  dB (tuner, tape, aux.); S/N 70 dB (phono), 80 dB (high level).  $4^{1/2}$ " H  $\times$   $14^{1/4}$ " W  $\times$ 11<sup>1</sup>/<sub>4</sub>" D ...... \$530

#### ROTEL

#### RA-2040 Stereo integrated Ampilfier

power circuitry; 120 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD and IM dist., 140 W/ch continuous into 4 ohms at 1000 Hz; frequency response 0-200,000 Hz ±3 dB. Preamplifier: dc FET phono equalizer and RIAA equalization; S/N (IHF "A") 80 dB (phono), 100 dB (tuner and tape); input sensitivity/impedance 2 mV/50,000 ohms (phono 1 and 2), 0.1 mV/33 ohms (moving-coil phono), 150 mV/ 50,000 ohrns (tuner, aux., tape), 980 mV/33,000 ohms (main in); 12 dB/octave subsonic filter at 15 Hz, 12 dB/octave supersonic filter at 24,000 Hz; phono overload 450 mV. Features stepped bass and treble controls with turnover switches; full tape dubbing; loudness switch; audio muting switch; peak LED bar-chart power indicators; additional capacitance and load impedance controls; two speaker pair connections; headphone jack. 55/6" H x 19" W × 161/14" D ..... RA-2030. Similar to RA-2040 except 80 W/ch continuous into 8 ohms, 110 W/ch continuous into 4 ohms; frequency response 0-125,000 Hz; phono overload 300 mV. Features similar except includes moving-coil head amplifier ...... \$680 RA-2020. Similar to RA-2030 except 60 W/ch continuous, both channels driven into 8 ohms, 85 W/ch into 4 ohms; THD and IM dist. 0.02%; frequency response 0-100,000 Hz ±3 dB; S/N 75 dB (phono), 95 dB (tuner and tape); phono overload 200 mV. Features similar to RA-2030 less recording selector and capacitance and load impedance switches; 127/6" D......\$485

#### **RA-1000 Stereo Integrated Amplifier**

Power amp: features dc circuitry; two-speaker switching; 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; frequency response 5-70,000 Hz  $\pm 0/-1$  dB. Preamp: features two-way tape dubbing and monitoring; phono selector for MM cartridges; subsonic filter; mode and loudness controls; -15-dB audio muting; input sensitivity/impedance 2.5 mV/50k ohms (phono), 150 mV/50k ohms (tuner and aux.); S/N 75 dB (phono), 85 dB (aux. and tuner). Equalizer: eight bands using OP amplifier; center frequencies set at 40, 100, 200, 400, 1000, 2500, 5000, and 10,000 Hz,  $\pm 12$  dB boost or cut;  $3^{27}/_{32}$ 

#### SAE

#### 2922 Integrated Amplifier

Combines SAE 2200 power amplifier and 2900 preamplifier with parametric equalizer; features tape/line filters and two-stage phono circuit... \$850

#### 3022 Integrated Amplifier

Combines SAE 2200 power amplifier and 3000 preamplifier; features separate bass, midrange, and treble controls for each channel, tape/line filters, and two-stage phono circuit ...... \$700

#### **A14 Stereo Integrated Amplifier**

Features LED power and tape output bar graph display; parametric equalization with tape EQ; movingcoil phono input; subsonic filter. 140 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD ...... \$650

#### 3031 Integrated Amplifier

Combines SAE 3100 power amp and 3000 preamp. Features three-band tone controls/ch, tape/line filters, and two-stage phono circuit.....

#### A7 Stereo integrated Amplifier

Features LED power output bar graph display; bass, midrange, and treble controls; external processor input; two-way tape dubbing and monitoring; subsonic filter. 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05%

#### C3A Integrated Amplifier

50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.05% THD; features full complementary circuitry, full tape copy capabilities, stepped volume, bass, and treble controls, level indicators, subsonic filter, muting switch ...... \$325

#### SANSUI

#### **AU-X1 DD/DC integrated Amplifier**

Features "Diamond Differential dc circuitry" in

phono equalizer and driver stage in power amp section; separate left/right power amp level controls; power amp operation control with ac/dc 1/dc 2/integrated settings; jump switch (bypasses 14-dB gain of preamp output section); switchable (-3 dB at 16 Hz) subsonic filter; input selector for phono 1 and 2 with moving magnet and moving-coil provision, tuner, and aux/tuner; two-way tape dubbing and monitoring; A and B speaker switching. Power amp: out-



put 160 W/ch continuous, both channels driven into 8 ohms from 5-20,000 Hz with 0.008% THD; frequency response 0-500,000 Hz; slew rate 260 V/µsec; rise time 0.5 µsec. Phono preamp: frequency response ±0.2 dB from 20-20,000 Hz (RIAA); S/N 91 dB (moving-magnet), 76 dB (moving-coil), 100 dB (aux.); phono overload 330 mV; matte black finish with rack-mounting...... \$1450

#### **AU-919 DD/DC Integrated Amplifier**

Features "Diamond Differential dc circuitry"; bass control with 150 and 300 Hz turnover frequency selectors, treble control with 3000 and 6000 Hz turnover frequency selectors; tone defeat; switchable subsonic filter; -20-dB muting; jump switch (bypasses 14-dB gain of preamp output); left/right balance control; A and B speaker switching; twoway tape dubbing and monitoring; input selector with LEDs for moving-magnet phono 2, moving-coil and moving-magnet phono 1 (switchable to built-in ICL dc pre-preamp), tuner, and aux. Power amp: 110 W/ch continuous, both channels driven into 8 ohms from 5-20,000 Hz with 0.008% THD; frequency response 0-500,000 Hz +0/-3 dB; slew rate 200 V/µsec; rise time 0.5 µsec. Phono preamp: frequency response 20-20,000 Hz ±0.2 dB (RIAA); overload 320 mV; S/N 90 dB (movingmagnet), -154 dB (moving-coil); matte black finish: detachable rack-mount adaptors .... AU-819. Similar to AU-919 without muting switch; has loudness compensation switch; power output 90 W/ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.008% THD; phono overload 350 mV. AU-719. Similar to AU-819 minus phono 1 movingcoil input and jump switch; has -20-dB muting switch; power output 90 W/ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.015% THD; power amp frequency response 0-400,000 Hz +0/-3 dB; slew rate 170 V/ $\mu$ sec; phono overload 230 mV; S/N 88 dB (phono), 100 dB (aux.).. AU-519. Similar to AU-719 minus muting switch and bass and treble turnover frequency selectors; built-in subsonic filter and loudness compensation have switch-selectable options; power output 70 W/ ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.009% THD; slew rate

#### **AU-717 DC Integrated Amplifler**

Power amp: features dc circuitry; left and right power supplies; dc voltage detection and overload current detection circuitry; A and B speaker switching; one-touch speaker terminal pushbutton; three ac outlets; output 85 W/ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.025% THD; IM dist. 0.01%; damping factor 60 into 8 ohms at 1000 Hz; slew rate 60 V/µsec; rise с; frequency response 0-200,000 на +0/-3 dB. Preamp: features 16- and 10,000-Hz subsonic and high filters on 6/dB octave slope; attenuated volume control; -20-dB audio muting; two-deck tape facilities; speaker switching for two systems; loudness control; LED input selector for phono 1 and 2, tuner, and aux.; tone defeat switch; bass control with 200 and 400 Hz turnover frequency selector and treble control with 3000 and

160 V/μsec; phono overload 300 mV ........... \$500

6000 Hz turnover frequency selectors; frequency response 20-20,000 Hz ±0.2 dB (phono RIAA); hum and noise -80 dB (phono 1 and 2), -100 dB(aux., tuner, tape); input sensitivity/impedance 2.5 mV/47k ohms (phono 1 and 2), 150 mV/47k ohms (aux., tuner, and tape); phono overload 350 mV rms (phono 1 and 2). Rear-panel switch for preamp/ power amp separation; matte black finish; EIA rackmount brackets;  $6^{5/6}$ " H ×  $18^{15/16}$ " W ×  $16^{1/2}$ " D (with rack mount)......\$550 AU-417. Similar to AU-517 except power output 65 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; phono overload 300 mV ..... \$395 AU-317. Similar to AU-417 except power output 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; power amp frequency response 0-200,000 Hz  $\pm 0/-2.5$  dB; slew rate 40 V/µsec; phono S/N 77 dB; phono overload 200 mV ..... \$350

**AU-217II Integrated Amplifier** 

Features bass, treble, and balance controls; high filter, loudness, and source/tape monitor switches; input selector for switchable subsonic filter, phono, tuner, and tape/aux. Power output: 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.06% THD. Preamp: frequency response ±0.5 dB from 30-15,000 Hz (RIAA); phono sensitivity 2.5 mV; S/N.76 dB (phono), 94 dB (aux.); phono overload 180 mV; matte black finish; rack mountable...............\$230 AU-117II. Similar to AU-217II without phono subsonic filter; power output 25 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.17% THD; phono overload 150 mV.....\$190

#### SANYO

#### **PLUS A35 Integrated Amplifier**

Power amp: features dc-coupled and two cascaded differential amplifier circuitry; dual 12-LED peak



power bar graph display with XO.1 and X1 display range selector; four-way output protection; two-way speaker switching; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 7-100,000 Hz +0/-1 dB; S/N 110 dB (IHF A);damping factor 50; slew rate 90 V/µsec. Preamp: features Class A phono preamp circuitry with moving-coil cartridge capability; subsonic and high filters; bass and treble controls; loudness switch; twoway tape dubbing and monitoring; input selector buttons with LEDs; input sensitivity/impedance 2.5 mV/47k ohms (phono MM), 250  $\mu$ V/100 ohms (phono MC), 150 mV/47k ohms (aux. and tape); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 20-20,000 Hz  $\pm 0.5$  dB (aux. and tape); S/N (IHF A) 85 dB (phono MM), 70 dB aux., tape, phono (MC); max. phono input 250 mV rms (MM), 25 mV rms (MC); includes rack-mount handles;  $3^{1}/2^{\prime\prime}$  H × 19" W (with handles) ×  $10^{5}/6^{\prime\prime}$  D ..... .....\$300

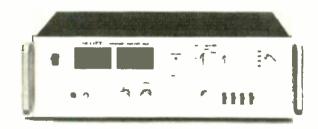
DCA611 Integrated Amplifier

60 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD; IM dist. 0.05%; frequency response 20-20,000 Hz +0/-1 dB (aux. and tape), RIAA phono deviation ±0.5 dB from 30-15,000 Hz; phono sensitivity/overload 2.5/150 mV; aux. and tape sensitivity/impedance 150 mV/50,000 ohms; low (12 dB/octave at 30 Hz) and high (6 dB/ octave at 7000 Hz) filters; tone control ±10 dB at 100 and 10,000 Hz. Features separate midrange control ± 10 dB at 1000 Hz; two-deck tape monitoring and dubbing; front-panel record jack; two peak power meters; 41-step attenuator volume control; switchable (A, B or A+B) speaker selector switch. 5<sup>1</sup>/<sub>8</sub>" H × 16<sup>1</sup>/<sub>2</sub>" W × 13<sup>3</sup>/<sub>4</sub>" D...... \$270 DCA411. Similar to DCA611 except 45 W/ch; no midrange and low filter controls ......\$200 **DCA311.** Similar to DCA411 except 30 W/ch and less tape monitoring/dubbing facilities ....... \$180

#### H.H. SCOTT

#### 480A Stereo Integrated Amplifier

85 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM



dist; input sensitivity 2.5 mV (phono), switchable 2.5/5.0 mV (phono 2), 150 mV (high level); S/N (weighted, input shorted) 90 dB (phono), 95 dB (high level); RIAA equalization ±0.5 dB from 20-20,000 Hz, high level at 1 W; phono overload switchable 180 and 360 mV; separate bass (±10 dB at 100 Hz), midrange (±6 dB at 1000 Hz), and treble (±10 dB at 10,000 Hz) tone controls; high (12 dB/octave at 8000 Hz) and subsonic (12 dB/ octave at 18 Hz) filters; channel separation 65 dB at 1000 Hz (phono), 75 dB at 1000 Hz (high level); crosstalk 80 dB at 1000 Hz; damping factor 100 at 1000 Hz into 8 ohms. Features two independent phono preamps, bimodal electro-sensor relay protection and delay circuit; linear to logarithmic opamp meter drive converters: 32-detent logarithmic dB-calibrated volume attenuator; variable impedance and capacitance selection; five-position mode switch; separate record and input selectors; accessory input switch; phono sensitivity switch; center detent balance control; dual range output power level meters calibrated in watts and dBW; two tape monitors with full tape copy; switchable speaker selector; 51/4" H × 17" W × 141/4" D ...... \$500 460A. Similar to 480A except 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04% THD and IM dist. Features similar but no variable impedance/capacitance selection and no accessory input switch ...... \$430 440A. Similar to 460A except 55 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; S/N (weighted, input shorted) 85 dB (phono), 90 dB (high level); phono overload 180 mV; channel separation 60 dB (phono), 70 dB (high level); no subsonic filter. Features similar except two-position mode selector and no record and input selectors; 51/4" H × 17" W × 11³/₄″ D ......\$350 420A. Similar to 440A except 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD and IM dist.; S/N (weighted, input shorted) 80 dB (phono), 85 dB (high level); high-level frequency response 20-20,000 Hz ±1 dB; channel separation at 1000 Hz 55 dB (phono), 60 dB (high level); damping factor 60 at 1000 Hz into 8 ohms. Features similar but no midrange control and no high and subsonic filters..... \$250

#### **SERIES 20**

#### A-27 Stereo Integrated Amplifier

Power amp: features class AB circuitry; two-speaker switching: 120 W/ch continuous, both channels driven into 8 ohms from 5-30,000 Hz with 0.015% THD and 0.006% IM dist.; frequency response 5-200,000 Hz +0/-1 dB; damping factor 60 from 5-30,000 Hz, 8 ohms; hum and noise -120 dB (IHFA); input sensitivity/impedance 1 V/50k ohms. Preamp: features built-in moving-coil head amp; separate 50 and 100 Hz bass and 10,000 and 20,000 Hz treble controls with tone defeat; low filter: two-way tape dubbing and monitoring; phono capacitance/resistance selectors; -20-dB audio muting; input selector with LEDs and separate MM/ MC phono selector; input sensitivity/impedance 2.5 mV/100, 10k, 25k, 50k, and 100k ohms switchable (phono MM), 250  $\mu$ V/100 ohms (MC), 150 mV/ 50k ohms (tuner, aux., tape); phono overload 300

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mV (MM), 30 mV (MC); frequency response  $\pm 0.2$  dB from 20-20,000 Hz (phono RIAA), 8-100,000 Hz  $\pm 0/-1$  dB (tuner, aux., tape); S/N (IHF A) 90 dB (phono MM), 78 dB (MC), 100 dB (tuner, aux., tape);  $6^{9}/6^{9}$  H  $\times$  17 $^{7}/6^{9}$  W  $\times$  18 $^{7}/16^{9}$  D ............\$1300

#### SHARP

#### SM-1122 Integrated Amplifier

OTL dc stereo integrated amplifier. 15 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.8% THD; IM dist. 0.3% at rated power; damping factor 40 at 8 ohms, 1000 Hz; input sensitivity/impedance 3.0 mV/40,000 ohms (phono), 150 mV/40,-000 ohms (tuner and aux.), 290 mV/40,000 ohms (tape), 2.5 mV/600 ohms (mic); output level 150 mV (tape), 95 mV (mic out); frequency response 15-70,000 Hz  $\pm 3$  dB (tape, tuner, aux.), RIAA phono deviation +0.5/-0.5 dB from 20-20,000 Hz. Features 41-step calibrated volume control, LED indicators for all functions, switchable loudness control, front-panel stereo headphone input, front-panel mic input with mic mixing level control, A, B/ A+B speaker selector switch, pushbutton function switches, and fader control. 55/8" H 15<sup>3</sup>/<sub>6</sub>" W × 10<sup>1</sup>/<sub>6</sub>" D......\$270 SM-1144. Similar to SM-1122 except 22 W/ch continuous with 0.4% THD; has two tape monitor switches with one-way dubbing and rumble filter; RIAA phono deviation ±1.0 dB; phono overload 200 mV ......\$350 MCR-1800. Audio component rack in wood vinyl fin-

#### **SHERWOOD**

#### S-702 CP Stereo Integrated Amplifier

Power amp: features three separate circuits for protection of speakers and amplifier; two-speaker switching; 60 W/ch continuous, both channels dri-

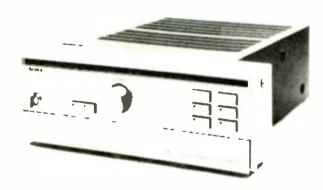


ven into 8 ohms from 20-20,000 Hz with 0.2% THD and IM dist.; frequency response 5-110,000 Hz ±1 dB; S/N 105 dB (iHF A weighted); damping factor 30:1 at 8 ohms; input sensitivity/impedance 1.0 V/50k ohms. Preamp: features bass and treble controls with tone defeat; subsonic and high filters; loudness and mode switches; two-way tape dubbing and monitoring; mic mixing; input selector; input sensitivity/impedance 2.5 mV/47k ohms (phono), 160 mV/50k ohms (aux. and tape); phono overload 200 mV at 1000 Hz; S/N (IHF A) 80 dB (phono), 95 dB (aux.), 80 dB (mic); frequency response  $\pm 0.5$  dB (phono RIAA), 20-20,000 Hz  $\pm 0.5$  dB.  $5^{1/2}$ " H ×  $17^{1/4}$ " W ×  $12^{3/4}$ " D......\$350 \$-402 CP. Similar to S-702 CP minus subsonic filter and tone defeat; 35 W/ch continuous under same conditions; S/N (IHF A) 100 dB (main amp), 90 dB (aux.) ..... \$250

#### SONY

#### **TA-F70 Stereo integrated Amplifier**

Power amp section: features direct-coupled dc circuitry; pulse power supply; Thermo-Dynamic cool-



ing system; 20-LED peak power bar display (from 0.01-130 W); connections for two pairs of speaker systems; 90 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.007% THD and IM dist.; frequency response 0-100,000 Hz +0/-1 dB; damping factor 100 at 8 ohms, 1000 Hz. Preamp: features low-noise transistor that provides for phono moving-coil cartridge; bass and treble controls with electronic tone defeat; switchable subsonic filter; two tape monitors with two-way tape dubbing; signal processing bypass selector; LED input and tape monitor selectors; input sensitivity/ impedance 2.5 mV/50k ohms (phono MM), 0.125 mV/33 or 100 ohms (phono MC), 150 mV/50k ohms (tuner, aux., tape); max. phono input 300 mV (MM), 15 mV (MC); phono RIAA  $\pm 0.2$  dB; S/N (IHF A) 88 dB (MM), 78 dB (MC), 105 dB (tuner, aux., 

#### TA-F6B Stereo Integrated Amplifier

Power amp: features direct-coupled dc circuitry; pulse locked power supply; dual power output meters; two-way speaker switching; 100 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.: frequency response 0-100.000 Hz + 0/-1 dB; damping factor 50 at 8 ohms; S/N 115 dB (A weighted). Preamp: features direct-coupled phono EQ amplifier and moving-coil preamp; bass and treble controls with tone defeat; low and high filter switches; ~20 dB muting; two-way tape dubbing and monitoring; mode switch; input sensitivity/impedance 2.5 mV/50k ohms (phono 1 and 2), 0.08 mV/100 ohms (head amp), 150 mV/150k ohms (tuner, aux., tape); max. input 250 mV (phono 1 and 2), 8 mV (head amp); frequency response ±0.2 dB (phono RIAA), 2-150,000 Hz +0/-1 dB (tuner, aux., tape); THD and IM dist. 0.003%; S/N (A weighted) 85 dB (phono 1, 2), 70 dB (head amp), 105 dB (tuner, aux., tape);  $6^{11}/_{16}$ " H ×  $16^{15}/_{16}$ " W ×  $15^{3}/_{6}$ " D \$610

#### TA-F60 Stereo Integrated Amplifier

Power amp: features pulse power supply; Thermo-

Dynamic cooling system; dual 13-LED peak power level display; two-way speaker switching; 75 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD and IM dist.; frequency response 3-70,000 Hz +0/-1 dB; damping factor 40 at 8 ohms, 1000 Hz. Preamp: features low-noise transistor for moving-coil cartridge, bass and treble controls with tone defeat; switchable subsonic filter; two-way tape dubbing with monitor switch; input selectors with LED indicators; input sensitivity/impedance 2.5 mV/50k ohms (MM), 0.25 mV/100 ohms (MC), 150 mV/50k ohms (tuner, aux., tape); max. phono input 250 mV (MM), 25 mV (MC); phono RIAA equalization  $\pm 0.2$ dB; S/N (IHF A) 88 dB (MM), 75 dB (MC), 100 dB (tuner, aux., tape);  $6^{5}/_{16}$ " H × 17" W × 13 $^{7}/_{16}$ " D ....

#### **TA-F30 Integrated Amplifier**

Features electronic tone defeat and LED power output indicators; 30 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; S/N 86 dB (phono); frequency response 5-60,000 Hz  $\pm$ 0/ $\pm$ 2 dB; 3 $^{1}$ / $_{a}$ " H  $\times$  17" W  $\times$  13 $^{1}$ / $_{a}$ " D......\$260

#### **Precise Series**

#### TA-P7F Mini Stereo Integrated Amplifier

Power amp: features pulse power supply: Thermo-Dynamic cooling system; LED peak power indicators; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD and IM dist.; frequency response 5-60,000 Hz +0/-1dB; damping factor 35 at 8 ohms, 1000 Hz. Preamp: features built-in moving coil capability through low-noise transistor; bass and treble controls with electronic tone defeat, acoustic compensator with two-position bass boost and loudness, balance, switchable subsonic filter, and MM/MC cartridge selector located behind removable front panel; input selectors with LEDs; input sensitivity/ impedance 2.5 mV/50k ohms (phono MM), 0.25 mV/100 (phono MC), 150 mV/50k ohms (tuner, aux., tape); max. input 120 mV (MM), 12 mV (MC); phono RIAA  $\pm 0.2$  dB; S/N (IHF A) 88 dB (MM), 75 dB (MC), 100 dB (tuner, aux., tape); complements miniature Precise Series ST-P7J tuner and PS-P7X turntable; 31/4" H × 81/2" W × 13" D...... \$500

#### STUDER/REVOX

#### **B750 Integrated Amplifier**

Fully complementary integrated stereo amplifier with equalizer connections and tape copy circuitry.



Amplifier: 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz  $\pm 0.5$  dB with 0.2% THD; damping factor better than 75 dB at 8 ohms; input sensitivity/impedance 1 V/10,000 ohms; phono overload 400 mV, 9 V (tuner, aux., tape 1 and 2). Preamplifier: input sensitivity/ impedance 200 mV/100,000 ohms (tuner, aux., tape 1 and 2), 5 mV/25,000, 50,000, 100,000 ohms (phono 1), 5 mV/50,000 ohms (phono 2); output/load impedance 6.5 mV/10,000 ohms (tape 2 out), 15.5 V/4 ohms (speaker A and B), 200 mV/ 50,000 ohms (tape 1 and 2), 1 V/10,000 ohms (pre out), 15.5 V/100 ohms (phone 1 and 2); S/N 90 dB unweighted (tuner, aux., tape 1 and 2), 70 dB unweighted (phono 1 and 2); channel separation at 1000 Hz better than 60 dB; RIAA phono equalization ±0.5 dB from 20-20,000 Hz. Features separate bass, treble, and presence controls ( $\pm 8$  dB in 2-dB steps) with tone defeat switch; 20-dB front-panel level pad; high (12 dB/octave at 8000 Hz) and low (12 dB/octave at 50 Hz) filters; calibrated balance control; two-deck capability with tape copy function; switchable A/B and A+B speaker selector; preamp out and power amp in accessible for outboard equalizer or other accessory; two headphone jacks.  $6^{\prime\prime}$  H  $\times$  17<sup>4</sup>/s $^{\prime\prime}$  W  $\times$  13<sup>3</sup>/s $^{\prime\prime}$  D ................\$999

#### **TECHNICS**

#### SU-8099 Stereo Integrated Amplifier

Power amp: features dc circuitry; fluorescent peakreading power display with range selector and LED dimmer; 115 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.007% THD. Preamp: features built-in moving-coil head amp; tape/source monitor switch with two-way tape dubbing; bass and treble controls with turnover frequencies; subsonic filter; S/N 102 dB at 10 mV in (phono) ...... \$1000

#### SU-8088 Stereo Integrated Amplifier

#### SU-8077 Stereo integrated Amplifier

Power amp: features dc circuitry and fluorescent peak-reading power meter display with range selector and LED dimmer; 60 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features built-in moving coil head amp; tape/source monitor switch with two-way tape dubbing; subsonic filter; S/N 100 dB at 10 mV (phono) \$450

#### SU-8055 Stereo Integrated Amplifier

Power amp: features dc circuitry and fluorescent peak-reading power meter display with range selector and LED dimmer; 47 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features three-stage dc phono equalizer; tape/source monitor switch with two-way tape dubbing; subsonic filter; accommodates moving-coil cartridges; S/N 98 dB at 10 mV in (phono) .... \$300

#### SU-8044 Stereo Integrated Amplifier

#### SU-8011 Stereo integrated Amplifier

Power amp: features dc circuitry; power supply with floating-coil transformer; LED peak-power meter indicators with range selector; main/remote speaker switches; 25 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD. Preamp: features three-stage direct-coupled phono equalizer; bass and treble controls; source/tape monitor switch; loudness switch; input selector; S/N 80 dB at 2.5 mV in (phono); pearl-gray metal cabinet....... \$175

#### **TOSHIBA**

#### SB-420 Integrated Amplifier

42 W/ch continuous, both channels driven into 8 ohms over 20-20,000 Hz with 0.3% THD; IM dist. 0.3%; damping factor 25; frequency response 10-80,000 Hz +0/-1 dB; power bandwidth 5-40,000 Hz, both channels driven, at 0.3% THD. Preamp: input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/47k ohms (aux., tape, tuner), 4 mV/20k ohms (mic), 1 V/47k ohms (main in); output 150 mV (tape), 1.0 V (preamp out); S/N (IHF "A") 80 dB (phono at 10 mV), 90 dB (aux.);

frequency response 30-15,000 ±0.3 dB (phono), 10-50,000 Hz + 0/-1 dB (aux., tape); phono overload 350 mV. Features all stage direct-coupled OCL circuitry and push-pull type symmetrical complementary circuitry; attenuator type volume control; two-step audio muting; two tape monitors; two phono inputs; two-step turnover switches with tone defeat; mike mixing with independent volume con-

#### YAMAHA

**CA-2010 Integrated Amplifier** 

Amplifier section switchable between classes A and B: 120 W/ch continuous (class B), 30 W/ch continuous (class A) into 8 ohms with 0.03% THD; preamp section incorporates equalizer amp with 96 dB S/N (IHF A); moving-coil amp has 71 dB S/N (IHF A) and 50 µV input sensitivity; tone control amp has tone, filter, and buffer amps; two-ganged volume controls for each channel (one each on input/output); peak level output meters have -50 to +5 dB range and may be switched to read rec. out terminal output; selectable phono impedance (47,000, 68,000, and 100,000 ohms); switching for independent use of preamp and power sections; audio muting switch.....\$800

CA-1010 Integrated Amplifier

Fully complementary OCL power amp section switchable between classes A and B; 90 W/ch (class B), 18 W/ch (class A), Preamp section has 96 dB S/ N (IHF A) and input sensitivity of 10 mV; dist. 0.003% (phono to rec. out); 310 mV dynamic margin for phono input; moving-coil head amp has 68 dB S/N (IHF A) and 50 μV input sensitivity; tone control amp has tone, filter, and buffer amp; twoganged volume control for each channel; peak level meters have a range of -50 to +5 dB and may be switched to read rec. out terminal output; three input impedances for MM cartridges (47,000, 68,-000, and 100,000 ohms); switching for independent use of preamp and power amp sections; audio muting switch .......\$670

A-1 Integrated Amplifier

DC integrated amplifier with built-in head amplifier for moving coil cartridges. Power amplifier: 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD; THD 0.005% max.; IM dist. 0.003% max.; power bandwidth 10-50,000 Hz; frequency response 20-20,000 Hz +0/-0.2 dB; damping factor over 100 at 8 ohms, 1000 Hz. Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms/200 pF (phono moving magnet),  $60 \,\mu\text{V}/10 \text{ ohms (phono moving cartridge)}, 200 \,\text{mV}/$ 47k ohms (tuner, aux., tape); max. input level 230 mV rms (moving magnet), 6 mV rms (moving coil); S/N at 10 mV ref. level better than 97 dB (phono moving magnet), better than 82 dB (phono moving coil), 112 dB min. (tuner, aux., tape); output sensitivity/impedance 200 mV/600 ohms (record playback), 2 V/600 ohms (preamp out); RIAA deviation  $0/\pm 0.2$  dB, 20-20,000 Hz +0/-0.2 dB (tuner, aux.); channel separation at 1000 Hz 70 dB min. at 5.1-ohm input (tuner), 75 dB min. at 5100-ohm input (phono moving magnet), 75 dB min. (phono moving coil, input shorted); headphone output 39 mV (8 ohms, rated output). Features FET input circuitry employed in power amplifier, tone control and equalizer; dual power meters; separate rec. out and input selectors; variable loudness controls; and high filter and power amp direct switches. 45/6" H × 17'/<sub>6</sub>" W × 15" D......\$630

CA-810 Integrated Ampilfier

65 W/ch continuous over 20-20,000 Hz with 0.05% dist.; preamp dist. 0.005%; S/N 83 dB (IHF A); input sensitivity 2.5 mV; moving-coil head amp has 73 dB S/N and 60 µV input sensitivity; has negative feedback tone controls with individual defeat controls for bass and treble; power output meters cover 0.5 mW to 158 W; phono impedance selectable (47,000, 68,000, 100,000 ohms); rec. out selector switch.....\$430

CA-610II Stereo Integrated Amplifier Power amplifier: 45 W/ch continuous into 8 ohms |

from 20-20,000 Hz at 0.05% THD, 50 W/ch continuous into 4 ohms from 20-20,000 Hz at 0.1% THD; THD and IM dist. 0.02% with 8-ohm load; damping factor 50 into 8 ohms at 1000 Hz. Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/ 47k ohms (tuner, aux., tape PB); max. input level 150 mV at 1000 Hz (phono); S/N 97 dB for 10 mV, shorted (phono), 100 dB (tuner, aux., tape PB); output sensitivity/ impedance 150 mV/600 ohms (rec. out); RIAA deviation +0.3/-0.3 dB from 30-15,000 Hz, 10-100,000 Hz + 2/-2 dB (tuner, aux., tape PB): high filter rolloff -6 dB/octave at 10,000 Hz. Features main direct switch to bypass tone-control amp; dual power meters; input and rec. out selectors; variable loudness contour; master volume control; two front-panel speaker connectors; stereo headphone jack; and three rear ac outlets. 61/4" H × 

CA-410 II integrated Amplifier

35 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.05% THD, 40 W continuous, both channels driven into 4 ohms from 20-20,000 Hz at 0.1% THD: input sensitivity/ impedance 3.0 mV/47k ohms (phono), 150 mV/ 47k ohms (tuner, aux., tape playback); max. input level 135 mV at 1000 Hz, 0.05% THD (phono); RIAA deviation +0.3/-0.3 dB from 30-15,000 Hz, +0.5/-0.5 dB (tuner, aux., tape); S/N (IHF "A") 95.4 dB shorted (phono), 100 dB (tuner, aux., tape playback), dist. 0.1% from 20-20,000 Hz at 1 V out (phono), 0.02% into 8 ohms at 17.5 W (tuner, aux., tape playback); subsonic filter rolloff -12 dB/ octave at 12 Hz, high filter rolloff -6 dB/octave at 8000 Hz. Features power output meters, separate input and record out selectors, variable loudness controls, and speaker selector buttons; 51/2" H × 17'/<sub>6</sub>" W × 13'/<sub>10</sub>" D......\$250

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#### **WPIONEER**

SX-780



45 watts RMS per channel, 0.05% THD. **CALL FOR PRICE** 

**WPIONEER** PL-516



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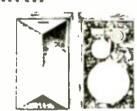
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55 watts per channel, 0.1% THD. CALL FOR PRICE

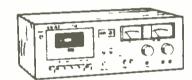
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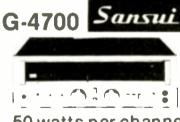


3 speakers, \$96 ea. 12" woofer.

CS-703D



Front load Dolby cassette deck.



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